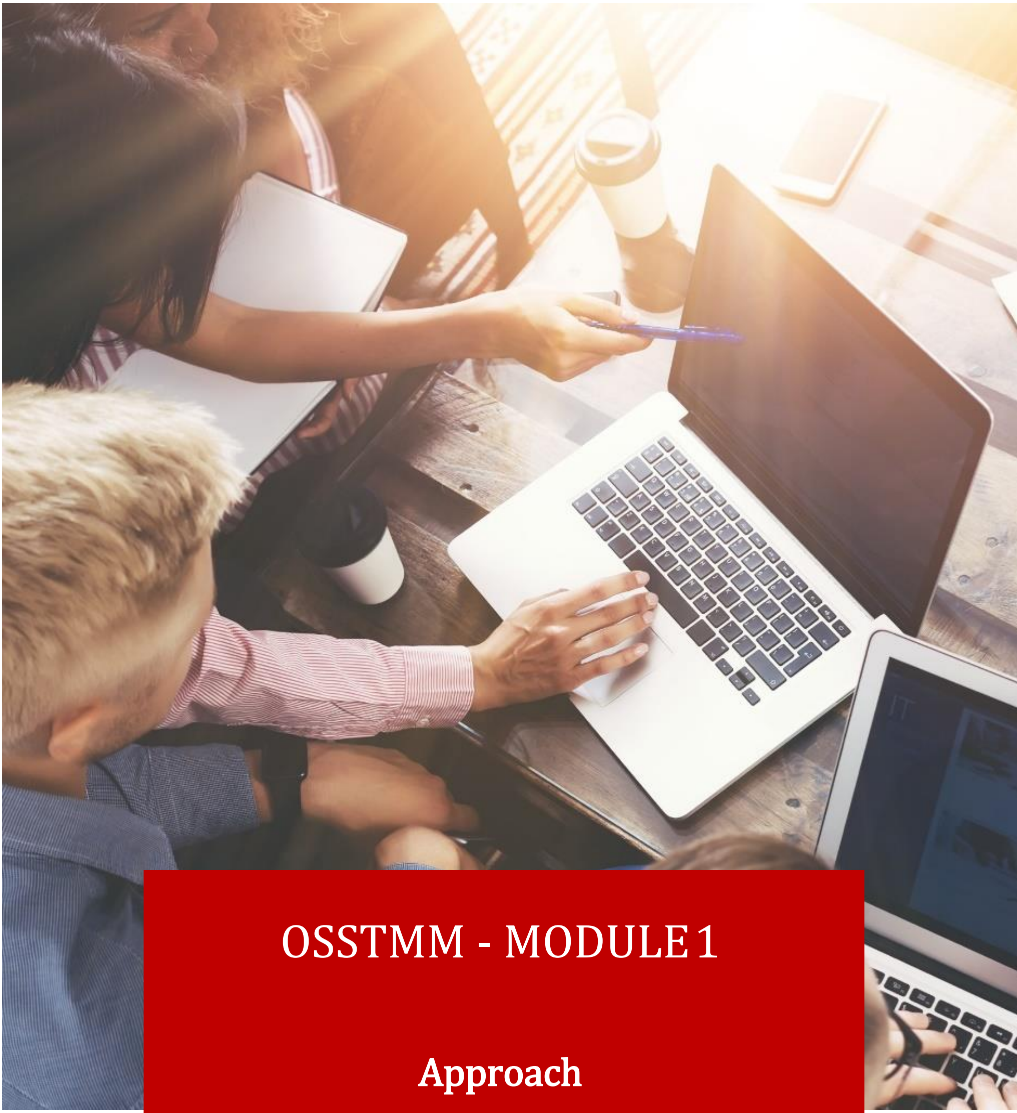


OSSTMM - MODULE 1

Approach

Created on 03 November 2021 | Our Reference: OWASP top10 Booklet.docx | Version: 1.8

Sensitivity: PUBLIC

This page intentionally left blank

Summary

1 Presentation 4

2 Passive information gathering with third party tools.. 6

3 Social media and documents 12

4 How to protect yourself............................. 20

5 Conclusion.. 21

1 Presentation

One of the first stage of a penetration test is the information gathering phase. This phase helps pentesters producing a strategic plan to attack a target. It involves finding, selecting and acquiring data from publicly available sources and analyzing it to produce actionable intelligence. This phase is also often referred as OSINT which stands for **O**pen **S**ource **INT**elligence. Open source means here overt (opposed to clandestine and covert sources) and has no link with open-source software.

The information gathering phase allows pentesters to determine various entry points into an organization (either physical, electronic or human). Many companies fail to control what information is publicly available about them and how hackers can use this information. More importantly, many employees leak sensitive information about them or about their company, giving attackers a fast track to the company's system.

Passive information gathering s distinguished from active one.

The first meaning of passive OSINT is to have no interaction with the target. That means sending no traffic to the organization and using archives or third party instead. This method is limited and used only when explicitly asked by the organization. That is why semi passive OSINT is more used in OSSTMM tests.

With the semi-passive OSINT, the goal is to profile the target using methods that would appear like normal traffic and behavior for the organization. It does not include in depth domain analysis or brute force. Other information sources like metadata found in documents are useful during this step.

Active OSINT on the other hand should appear like malicious or at least suspicious for the target as it involves mapping the network infrastructure, full port scan, vulnerability scan, etc.

The first two modules focus on methods used to perform both passive and active information gathering. It is however not exhaustive as there is a very large number of information sources and as many tools to collect data from them. This document will only give the most common tools and technics to gather information about a target.

Be aware that information gathering is not an exact science and that collected information might be outdated or false (old website or disinformation to cloud the issue for instance). Another challenge is to extract the right amount of data and not to be overloaded.

See also HUMINT, SIGINT, GEOINT and MASINT, which are other information gathering technics.

2 Passive information gathering with third party tools

Google Dorks

Google dorks are search strings that make use of advanced search operators to find information that are not always readily available on a website.

This dorks can be used to find vulnerabilities on websites or hidden information such as usernames and passwords, sensitive documents, email lists, etc.

Useful links:

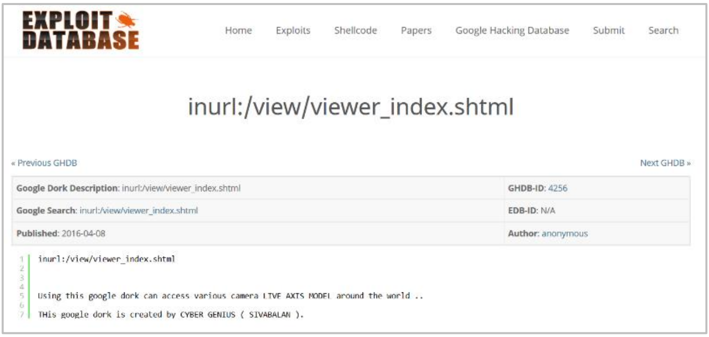
- www.exploit-db.com/google-hacking-database/

Hands on!

Use Google Dorks to find an online camera system.

Hands on! ANSWERS

First, go on the google hacking database and search for ‘camera’.



inurl:/view/viewer_index.shtml

Google Dork Description: inurl:/view/viewer_index.shtml	**GHDB-ID**: 4256
Google Search: inurl:/view/viewer_index.shtml	**EDB-ID**: N/A
Published: 2016-04-08	**Author**: anonymous

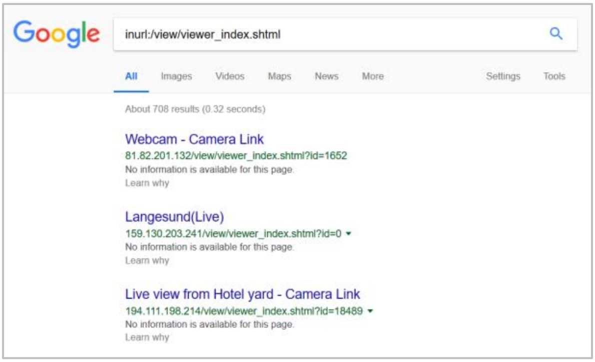
```
inurl:/view/viewer_index.shtml



Using this google dork can access various camera LIVE AXIS MODEL around the world ..

THis google dork is created by CYBER GENIUS ( SIVABALAN ).
```

Google gives the following results when using the previous dork:



Google inurl:/view/viewer_index.shtml

All Images Videos Maps News More Settings Tools

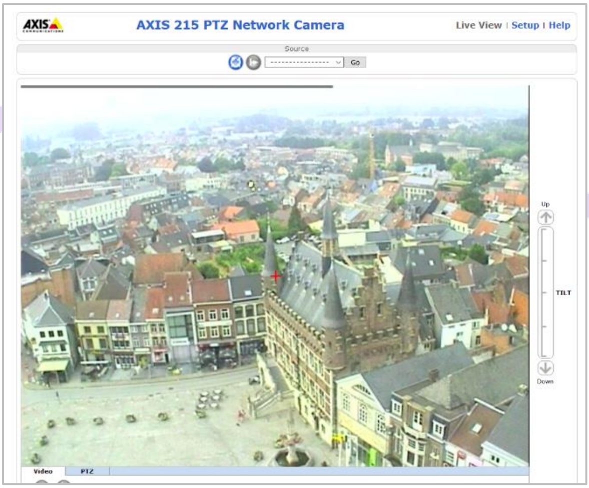
About 708 results (0.32 seconds)

Webcam - Camera Link
81.82.201.132/view/viewer_index.shtml?id=1652
No information is available for this page.
Learn why

Langesund(Live)
159.130.203.241/view/viewer_index.shtml?id=0
No information is available for this page.
Learn why

Live view from Hotel yard - Camera Link
194.111.198.214/view/viewer_index.shtml?id=18489
No information is available for this page.
Learn why

Click on the first link to get access to a town camera:



Note: Google Dorks can also be used for Domain Name discovery, using the “site” dorks:

- First search for “`site:telindus.lu –site:www.telindus.lu`”
- Then add the domain you want to remove from results with the “-site” dorks.

Shodan

Shodan is a search engine for internet-connected devices. It works by scanning the entire Internet and by parsing the banners that it collects. It can give us information about the type of web server that is running on a machine along with the version. It is important to notice that Shodan does not use nmap (see later) as scanner but its own scanner, which could give different results.

Useful links:

- www.shodan.io

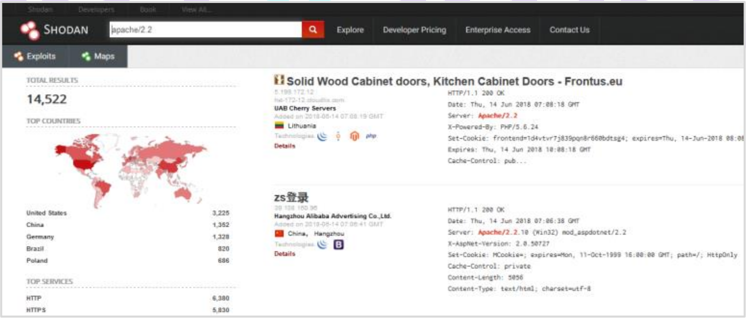
Hands on!

Use Shodan to find Apache 2.2 servers located in France.

Hands on! ANSWERS

Filters require a Shodan account, but some useful information are available without using those filters, searching for example with:

```
Apache/2.2
```



TOTAL RESULTS

14,522

TOP COUNTRIES

United States	3,225
China	1,352
Germany	1,328
Brazil	820
Poland	686

TOP SERVICES

HTTP	6,380
HTTPS	5,830

Solid Wood Cabinet doors, Kitchen Cabinet Doors - Frontus.eu

5.199.172.12
hel-172-12.cloudlix.com
UAB Cherry Servers
Added on 2018-06-14 07:08:19 GMT
Lithuania
Technologies
Details

```
HTTP/1.1 200 OK
Date: Thu, 14 Jun 2018 07:08:18 GMT
Server: Apache/2.2
X-Powered-By: PHP/5.6.24
Set-Cookie: frontend=1d4vtvr7j839pqn8r660bdtsg4; expires=Thu, 14-Jun-2018 08:08
Expires: Thu, 14 Jun 2018 10:08:18 GMT
Cache-Control: pub...
```

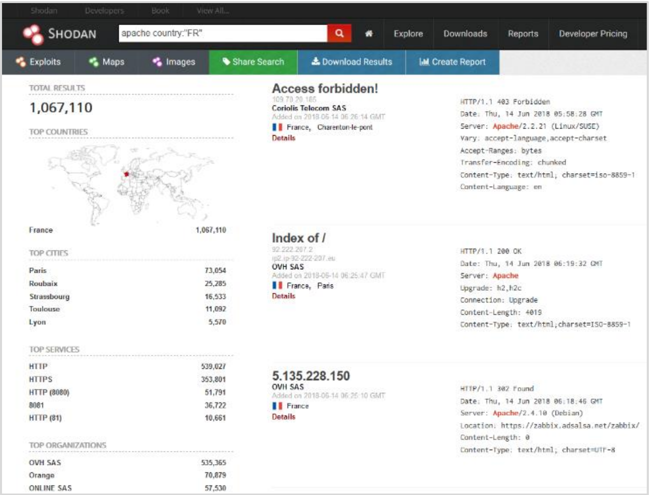
zs登录

39.108.160.95
Hangzhou Alibaba Advertising Co.,Ltd.
Added on 2018-06-14 07:06:41 GMT
China, Hangzhou
Technologies
Details

```
HTTP/1.1 200 OK
Date: Thu, 14 Jun 2018 07:06:38 GMT
Server: Apache/2.2.10 (Win32) mod_aspdotnet/2.2
X-AspNet-Version: 2.0.50727
Set-Cookie: MCookie=; expires=Mon, 11-Oct-1999 16:00:00 GMT; path=/; HttpOnly
Cache-Control: private
Content-Length: 5056
Content-Type: text/html; charset=utf-8
```

With a free account, it is possible to perform filtered search:

```
Apache country:”FR”
```



apache country:"FR"

TOTAL RESULTS

1,067,110

TOP COUNTRIES

France	1,067,110

TOP CITIES

Paris	73,054
Roubaix	25,285
Strassbourg	16,533
Toulouse	11,092
Lyon	5,570

TOP SERVICES

HTTP	539,027
HTTPS	353,801
HTTP (8080)	51,791
8081	36,722
HTTP (81)	10,661

TOP ORGANIZATIONS

OVH SAS	535,365
Orange	70,879
ONLINE SAS	57,530

Access forbidden!
109.70.20.185
Coriolis Telecom SAS
Added on 2018-06-14 06:26:14 GMT
France, Charenton-le-pont
Details

```
HTTP/1.1 403 Forbidden
Date: Thu, 14 Jun 2018 05:58:28 GMT
Server: Apache/2.2.21 (Linux/SUSE)
Vary: accept-language,accept-charset
Accept-Ranges: bytes
Transfer-Encoding: chunked
Content-Type: text/html; charset=iso-8859-1
Content-Language: en
```

Index of /
92.222.207.2
ip2.ip-92-222-207.eu
OVH SAS
Added on 2018-06-14 06:25:47 GMT
France, Paris
Details

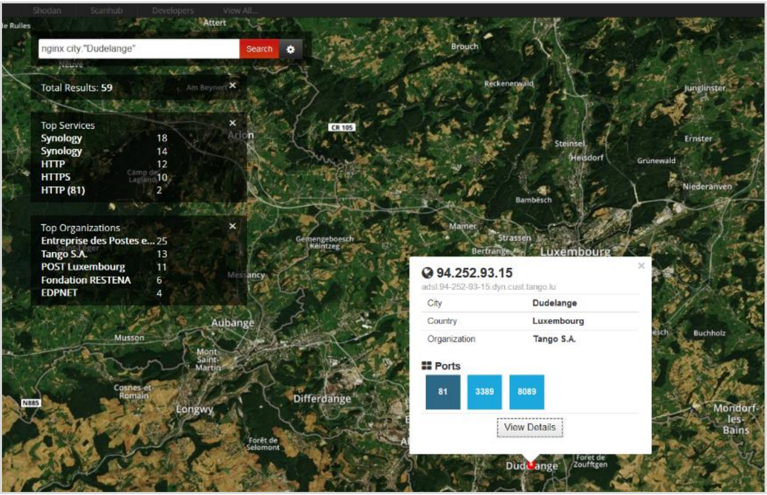
```
HTTP/1.1 200 OK
Date: Thu, 14 Jun 2018 06:19:32 GMT
Server: Apache
Upgrade: h2,h2c
Connection: Upgrade
Content-Length: 4019
Content-Type: text/html;charset=ISO-8859-1
```

5.135.228.150
OVH SAS
Added on 2018-06-14 06:25:10 GMT
France
Details

```
HTTP/1.1 302 Found
Date: Thu, 14 Jun 2018 06:18:46 GMT
Server: Apache/2.4.10 (Debian)
Location: https://zabbix.adsalsa.net/zabbix/
Content-Length: 0
Content-Type: text/html; charset=UTF-8
```

Looking for nginx server in Dudelange:

```
nginx city:”Dudelange”
```



nginx city:"Dudelange"

Total Results: 59

Top Services

Synology	18
Synology	14
HTTP	12
HTTPS	10
HTTP (81)	2

Top Organizations

Entreprise des Postes e...	25
Tango S.A.	13
POST Luxembourg	11
Fondation RESTENA	6
EDPNET	4

94.252.93.15
adsl.94-252-93-15.dyn.cust.tango.lu

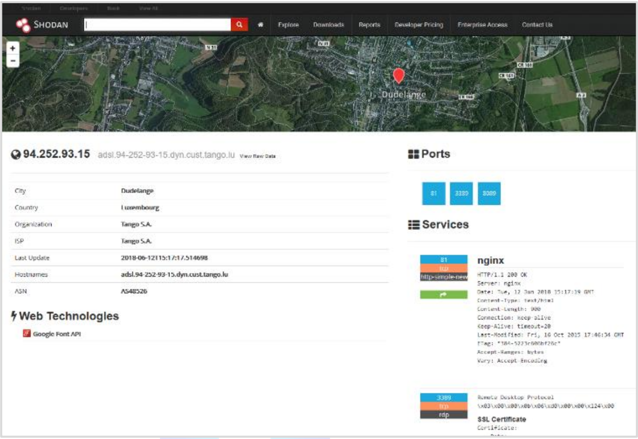
City	Dudelange
Country	Luxembourg
Organization	Tango S.A.

Ports

81 3389 8089

View Details

Clicking on 'details' even gives the open ports and the services running on the server.



94.252.93.15 adsl.94-252-93-15.dyn.cust.tango.lu

City	Dudelange
Country	Luxembourg
Organization	Tango S.A.
ISP	Tango S.A.
Last Update	2018-06-12T15:17:17.514698
Hostnames	adsl.94-252-93-15.dyn.cust.tango.lu
ASN	AS48526

Web Technologies

Google Font API

nginx

```
HTTP/1.1 200 OK
Server: nginx
Date: Tue, 12 Jun 2018 15:17:19 GMT
Content-Type: text/html
Content-Length: 900
Connection: keep-alive
Keep-Alive: timeout=20
Last-Modified: Fri, 16 Oct 2015 17:46:34 GMT
ETag: "384-5223c000bf26c"
Accept-Ranges: bytes
Vary: Accept-Encoding
```

```
Remote Desktop Protocol
\x03\x00\x00\x0b\x06\xd0\x00\x00\x124\x00
```

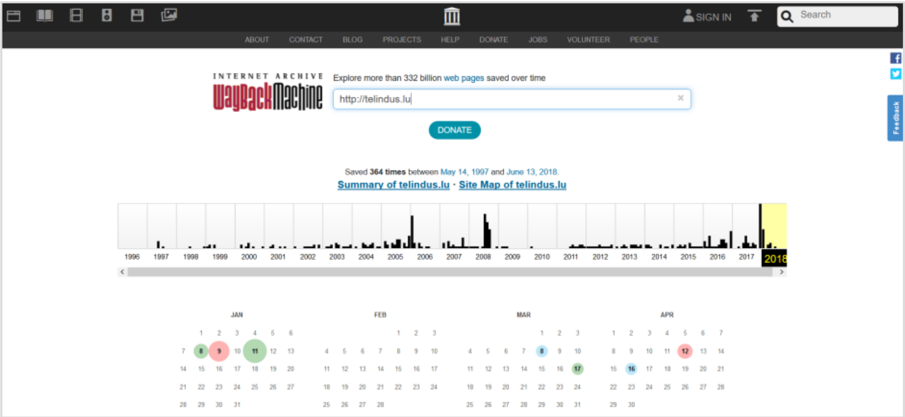
SSL Certificate

```
Certificate:
```

The Wayback Machine

The Wayback archive aims to be an archive of the Web. It allows people to crawl snapshots of websites. This could be useful to visit a website without actually requesting the company servers and so without any contact with the target. Moreover, this can give interesting information about the technology evolution and might allow attackers to find valuable information.

For instance, the Wayback machine has 364 snapshots of telindus.lu, from May 14, 1997 to June 13, 2018.



Explore more than 332 billion web pages saved over time

http://telindus.lu

Saved 364 times between May 14, 1997 and June 13, 2018.

Summary of telindus.lu · Site Map of telindus.lu

Passive banner grabbing with Netcraft

Netcraft is an internet security company that provides services for a wide range of industries. It has powerful analyzing tools, which try to guess what technologies are powering websites.

Using Netcraft allows the pentester to not interact with the target system and still get information. In a full passive information gathering, this tool is a real asset.

For more information on banners, see “Banner grabbing with netcat”.

Hands on!

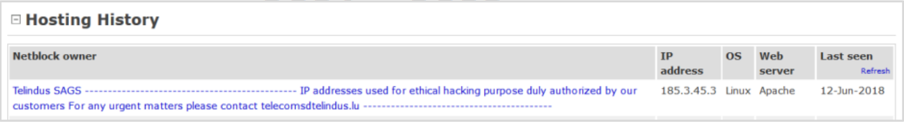
What are the OS and the webservers running on:

- http://sagsbox.telinduslab.lu
- http://sagsblog.telinduslab.lu

What can be inferred from these results?

Hands on! ANSWERS

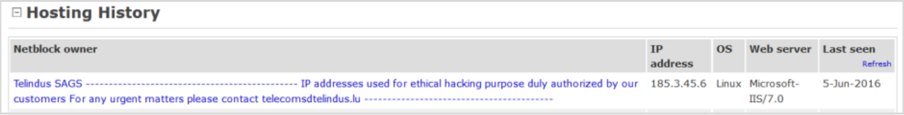
Netcraft’s results for sagsbox:



⊟ **Hosting History**

Netblock owner	IP address	OS	Web server	Last seen Refresh
Telindus SAGS --- IP addresses used for ethical hacking purpose duly authorized by our customers For any urgent matters please contact telecomsdtelindus.lu ---------------------------------------	185.3.45.3	Linux	Apache	12-Jun-2018

Netcraft’s results for sagsblog:



⊟ **Hosting History**

Netblock owner	IP address	OS	Web server	Last seen Refresh
Telindus SAGS --- IP addresses used for ethical hacking purpose duly authorized by our customers For any urgent matters please contact telecomsdtelindus.lu ---------------------------------------	185.3.45.6	Linux	Microsoft-IIS/7.0	5-Jun-2016

Based on this information, sagsbox seems to be running on Linux, powered by an Apache server.

However, sagsblog appears to run Microsoft IIS/7.0 on Linux too, which is impossible. Banners can be altered to avoid giving sensitive information on the Internet.

3 Social media and documents

TheHarvester

As explained on the project's Github page, *theHarvester* is a tool that collects subdomain names, e-mail addresses, virtual hosts, open ports/banners, and employees' names from different public sources (search engines, PGP key servers, etc.).

Useful links:

- github.com/laramies/theHarvester
- osintframework.com/
- github.com/thewhiteh4t/pwnedOrNot

Hands on!

Find subdomains names and emails addresses for the domain *telindus.lu*.

Hands on! ANSWERS

First using *theHarvester* ability to search on *google*:

```
root@kali:~/theHarvester# python theHarvester.py -d telindus.lu -b
google

*******************************************************************
*                                                                 *
* | |_| |__   ___    /\  /\__ _ _ ____   _____  ___| |_ ___ _ __  *
* | __| '_ \ / _ \  / /_/ / _` | '__\ \ / / _ \/ __| __/ _ \ '__| *
* | |_| | | |  __/ / __  / (_| | |   \ V /  __/\__ \ ||  __/ |    *
*  \__|_| |_|\___| \/ /_/ \__,_|_|    \_/ \___||___/\__\___|_|    *
*                                                                 *
* TheHarvester Ver. 3.0                                           *
* Coded by Christian Martorella                                   *
* Edge-Security Research                                          *
* cmartorella@edge-security.com                                   *
*******************************************************************

[-] Starting harvesting process for domain: telindus.lu

[-] Searching in Google:
        Searching 0 results...
        Searching 100 results...
        Searching 200 results...
        Searching 300 results...
        Searching 400 results...
        Searching 500 results...

 Harvesting results

[+] Emails found:
------------------
contact@telindus.lu
Leclerc@telindus.lu
Cedric.Mauny@telindus.lu
Jeremy.Thimont@telindus.lu
marcom@telindus.lu
calldesk@telindus.lu
marketing@telindus.lu
csirt@telindus.lu
serviceprovidernetworks@telindus.lu
gerard.hoffmann@telindus.lu
info@telindus.lu
chantal.demmerle@telindus.lu
noemie.turpain@telindus.lu
Joany.boutet@telindus.lu
cybersecurity@telindus.lu
penelope.lembessi@telindus.lu
telecomsd@telindus.lu
serge.munhoven@telindus.lu
sebastien.laurenti@telindus.lu
Jean.glod@telindus.lu
jean.glod@telindus.lu
Charles.hottelet@telindus.lu
joseph.paris@telindus.lu
armand.meyers@telindus.lu
Frank.roessig@telindus.lu
dns@telindus.lu
olivier.montee@telindus.lu
jean.calcada@telindus.lu
Lorenz.MEIS@telindus.lu
recrutement@telindus.lu
joelle.wingerter@telindus.lu

[+] Hosts found in search engines:
------------------------------------

Total hosts: 18

[-] Resolving hostnames IPs...

appsentry.telindus.lu : 31.204.90.59
corporate.telindus.lu : 85.93.219.14
dns.telindus.lu : empty
external.telindus.lu : empty
frankfurt.telindus.lu : empty
```

```
gw-br02.frankfurt.telindus.lu : empty
ip...telindus.lu : empty
lyncdiscover.telindus.lu : 31.204.90.55
mail.telindus.lu : 31.204.90.85
mcis-external.telindus.lu : 31.204.90.35
purple-external.telindus.lu : empty
queue.bet.azurestack.telindus.lu : empty
roc-sai.telindus.lu : 31.204.88.193
tlu1lync02.telindus.lu : empty
training.telindus.lu : 31.204.90.85
u-share.telindus.lu : 31.204.90.51
www.telindus.lu : 31.204.90.51
www.training.telindus.lu : 31.204.90.85
```

Then trying to look on *linkedin*:

```
root@kali:~/theHarvester# python theHarvester.py -d telindus.lu -b
linkedin

[-] Starting harvesting process for domain: telindus.lu

[-] Searching in Linkedin..
        Searching 100 results..
        Searching 200 results..
        Searching 300 results..
        Searching 400 results..
        Searching 500 results..
Users from Linkedin:
-------------------
Jean-Jacques Beasch
Gerard Hoffmann - CEO for Luxembourg - Proximus
Daniel Soriano
Yann Michel
Frank Roessig
Maria Kyriakoudi
Jean-Pierre Ceccacci
Jean-Marie Paris
Gerard Hoffmann - CEO for Luxembourg - Proximus
Nicolas Demonty - Network Engineer - Clearstream
Antonello Di Pinto - Lead Developer - Nvision Luxembourg
Gerard Hoffmann - CEO for Luxembourg - Proximus
Joany Boutet - Member - OWASP Foundation
Benoit Poncelet - Application Engineer - Web eMotion
Frank Roessig
Serge Munhoven
Yahia CHABNI - AVP - IT Manager - Silver Holdings
Vincent Artiguebieille - ITSM Senior Consultant - Amaris
Maurice Groben - Sales Director
olivier montee - Information risk and security officer - KPMG
Bruno Saravia - Account Manager - OpenField S.A.
Alexis Jouanne - System engineer - Elgon S.A.
Eric Hausman - Senior Account Executive - Microsoft
Laurianne Bouvet
```

```
Philippe Roux - VC Engineer - POST Telecom PSF S.A.
Vincent Williquet - Technical Manager - Netcore PSF SA
Ralf Hustadt
Julien Doussot - CEO - BLACKHORN
edgard belolo
Martial COLLOT
Sandra Parracho Soares
Franck Ludwig - Operations Manager IT - Online Banking
Alex STREITZ
Djuma Cauwenbergh
Jacques Ruckert
Fabrice Crompin
Danielle Vassard
Glauber Santos - Service Manager - LuxTrust S.A.
Marouan Darhnaj
Remi Meunier
Claude Schiltz
Laure Jaltel
```

Looking in *PGP database* could also give interesting emails:

```
root@kali:~/theHarvester# python theHarvester.py -d telindus.lu -b pgp

[+] Emails found:
------------------
frederic.dhuez@telindus.lu
anton.shkurenko@telindus.lu
tristan.roussel@telindus.lu
valentin.lacave@telindus.lu
bruno.rubin@telindus.lu
joany.boutet@telindus.lu
damien.gitter@telindus.lu
pierre-alain.francois@telindus.lu
jeanfrancois.job@telindus.lu
sebastien.grelot@telindus.lu
csirt@telindus.lu
frederic.hauss@telindus.lu
cedric.mauny@telindus.lu
jeremy.thimont@telindus.lu
tom.leclerc@telindus.lu
```

NB: other tools can be useful to gather information about people such as *hunter.io* or to check if they have already been powned somewhere (*haveibeenpwned.com*).

Demo using *pwnedOrNot* tool:

```
root@kali:~/pwnedOrNot# python3 pwnedornot.py -f gathered-emails.txt

                                         ______      _   __      __
```

```
           ____ _      ______  ___  ____/ / __ \_____/ | / /___  / /_
          / __ \ | /| / / __ \/ _ \/ __  / / / / ___/  |/ / __ \/ __/
         / /_/ / |/ |/ / / / /  __/ /_/ / /_/ / /  / /|  / /_/ / /_
        / .___/|__/|__/_/ /_/\___/\__,_/\____/_/  /_/ |_/\____/\__/
       /_/

       Developed by : thewhiteh4t
       Version      : 1.0.7

[+] Checking for updates...

[+] Script is up-to-date...

[+] Bypassing Cloudflare Restriction...

[+] Reading Emails Accounts from gathered-emails.txt

[+] Checking Breach status for contact@telindus.lu

[!] Account pwned...Listing Breaches...

[+] Breach      : Onliner Spambot
[+] Domain      :
[+] Date        : 2017-08-28
[+] Fabricated  : False
[+] Verified    : True
[+] Retired     : False
[+] Spam        : True

[+] Dumps Found...!

[+] Looking for Passwords...this may take a while...

...
```

Metagoofil

Metagoofil is a tool that uses Google to look for documents belonging to a specific domain, download them and extract metadata in order to gather information about a target. Information that can be found in those metadata include usernames, path, software in use, operating systems, etc.

Useful links:

- https://github.com/laramies/metagoofil

Hands on!

Find information about Telindus using documents' metadata with Metagoofil.

```
root@kali:~/metagoofil# python metagoofil.py -d telindus.lu -t
doc,pdf,ppt,docx,pptx -f output_file -l 200 -n 5 -o test

******************************************************
*     /\/\   ___| |_ __ _  __ _  ___   ___  / _(_) | *
*    /    \ / _ \ __/ _` |/ _` |/ _ \ / _ \| |_| | | *
*   / /\/\ \  __/ || (_| | (_| | (_) | (_) |  _| | | *
*   \/    \/\___|\__\__,_|\__, |\___/ \___/|_| |_|_| *
*                         |___/                      *
* Metagoofil Ver 2.2                                 *
* Christian Martorella                               *
* Edge-Security.com                                  *
* cmartorella_at_edge-security.com                   *
******************************************************


[-] Starting online search...

[-] Searching for doc files, with a limit of 200
	Searching 100 results...
	Searching 200 results...
Results: 10 files found
Starting to download 5 of them:
----------------------------------------
. . .

[-] Searching for pdf files, with a limit of 200
	Searching 100 results...
	Searching 200 results...
Results: 96 files found
Starting to download 5 of them:
----------------------------------------
. . .

[-] Searching for ppt files, with a limit of 200
	Searching 100 results...
	Searching 200 results...
Results: 5 files found
Starting to download 5 of them:
----------------------------------------
. . .

[-] Searching for docx files, with a limit of 200
	Searching 100 results...
	Searching 200 results...
Results: 5 files found
Starting to download 5 of them:
----------------------------------------
. . .

[-] Searching for pptx files, with a limit of 200
	Searching 100 results...
	Searching 200 results...
```

```
Results: 5 files found
Starting to download 5 of them:
----------------------------------------
. . .

[+] List of users found:
--------------------------
��mcamy

[+] List of software found:
-----------------------------
Adobe PDF library 7.77
Adobe Illustrator CS2
��DocuCom PDF Driver 5.56 for NT(Light)
��Microsoft Word
Adobe PDF Library 8.0
Adobe InDesign CS3 (5.0)
Adobe PDF Library 7.0
Adobe InDesign CS2 (4.0.4)

[+] List of paths and servers found:
---------------------------------------

[+] List of e-mails found:
----------------------------
marc.rob@telindus.lu
privacy@telindus.lu
Privacy@Telindus
```

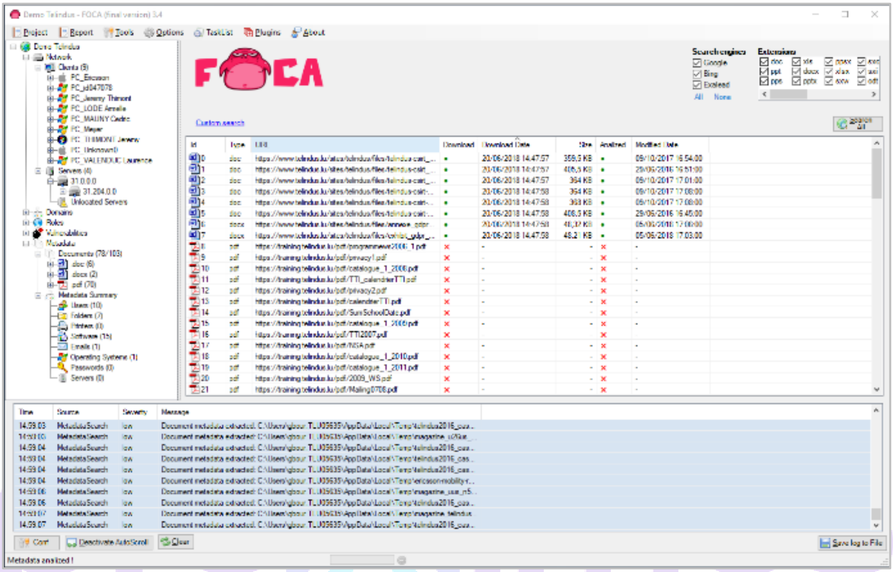
FOCA

Foca (which stands for **F**ingerprinting **O**rganizations with **C**ollected **A**rchives) is similar to Metagoofil: it collects documents from the internet (Google, Bing and DuckDuckGo) to find metadata and hidden information. It is capable of analyzing a variety of documents like MS Office, PDF, Adobe, etc.

With all these metadata, it can find usernames, software in use, operating systems, just as Metagoofil does.

Hands on! DEMO

Using FOCA on telindus.lu and telindustelecom.lu, some interesting results can be observed:



Demo Telindus - FOCA (final version) 3.4

```
Demo Telindus
  Network
    Clients (9)
      PC_Ericsson
      PC_id047078
      PC_Jeremy Thimont
      PC_LODE Armelle
      PC_MAUNY Cedric
      PC_Meyer
      PC_THIMONT Jeremy
      PC_Unknown0
      PC_VALENDUC Laurence
    Servers (4)
      31.0.0.0
        31.204.0.0
      Unlocated Servers
  Domains
  Roles
  Vulnerabilities
  Metadata
    Documents (78/103)
      doc (6)
      docx (2)
      pdf (70)
    Metadata Summary
      Users (10)
      Folders (7)
      Printers (0)
      Software (15)
      Emails (1)
      Operating Systems (1)
      Passwords (0)
      Servers (0)
```

Search engines: ☑ Google ☑ Bing ☑ Exalead

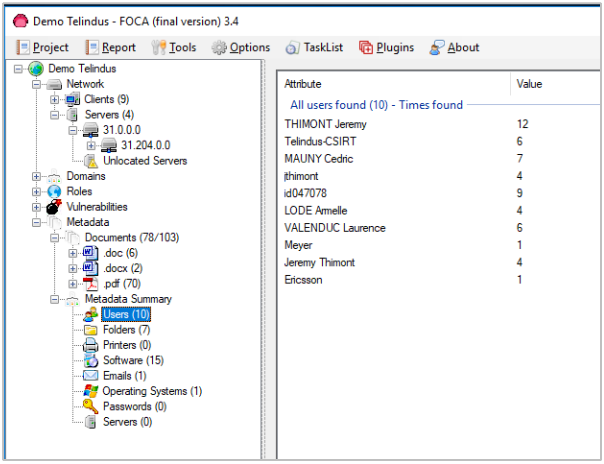
Extensions: ☑ doc ☑ ppt ☑ pps ☑ xls ☑ docx ☑ pptx ☑ ppsx ☑ xlsx ☑ sxw ☑ sxc ☑ sxi ☑ odt

Id	Type	URL	Download	Download Date	Size	Analized	Modified Date
0	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt_...	●	20/06/2018 14:47:57	359,5 KB	●	09/10/2017 16:54:00
1	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt_...	●	20/06/2018 14:47:57	408,5 KB	●	29/06/2016 16:51:00
2	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt_...	●	20/06/2018 14:47:57	364 KB	●	09/10/2017 17:01:00
3	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt-...	●	20/06/2018 14:47:58	364 KB	●	09/10/2017 17:08:00
4	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt-...	●	20/06/2018 14:47:58	368 KB	●	09/10/2017 17:08:00
5	doc	https://www.telindus.lu/sites/telindus/files/telindus-csirt-...	●	20/06/2018 14:47:58	408,5 KB	●	29/06/2016 16:45:00
6	docx	https://www.telindus.lu/sites/telindus/files/annexe_gdpr...	●	20/06/2018 14:47:58	48,17 KB	●	05/06/2018 17:03:00
7	docx	https://www.telindus.lu/sites/telindus/files/cahier_gdpr_...	●	20/06/2018 14:47:58	48,21 KB	●	05/06/2018 17:03:00
8	pdf	https://training.telindus.lu/pdf/programmeww2006_1.pdf	✗	-	-	✗	-
9	pdf	https://training.telindus.lu/pdf/privacy1.pdf	✗	-	-	✗	-
10	pdf	https://training.telindus.lu/pdf/catalogue_1_2008.pdf	✗	-	-	✗	-
11	pdf	https://training.telindus.lu/pdf/TTI_calendrierTTI.pdf	✗	-	-	✗	-
12	pdf	https://training.telindus.lu/pdf/privacy2.pdf	✗	-	-	✗	-
13	pdf	https://training.telindus.lu/pdf/calendrierTTI.pdf	✗	-	-	✗	-
14	pdf	https://training.telindus.lu/pdf/SumSchoolDate.pdf	✗	-	-	✗	-
15	pdf	https://training.telindus.lu/pdf/catalogue_1_2009.pdf	✗	-	-	✗	-
16	pdf	https://training.telindus.lu/pdf/TTI2007.pdf	✗	-	-	✗	-
17	pdf	https://training.telindus.lu/pdf/NSA.pdf	✗	-	-	✗	-
18	pdf	https://training.telindus.lu/pdf/catalogue_1_2010.pdf	✗	-	-	✗	-
19	pdf	https://training.telindus.lu/pdf/catalogue_1_2011.pdf	✗	-	-	✗	-
20	pdf	https://training.telindus.lu/pdf/2009_WS.pdf	✗	-	-	✗	-
21	pdf	https://training.telindus.lu/pdf/Mailing0708.pdf	✗	-	-	✗	-

```
Time      Source          Severity  Message
14:59:03  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
14:59:03  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\magazine_u2fus_...
14:59:04  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
14:59:04  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
14:59:04  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
14:59:04  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\ericsson-mobility-r...
14:59:06  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\magazine_uus_n5...
14:59:06  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
14:59:07  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\magazine_telindus
14:59:07  MetadataSearch  low       Document metadata extracted: C:\Users\gbour.TLU09635\AppData\Local\Temp\telindus2016_cas...
```

Metadata analized !

In addition, some interesting usernames:



Demo Telindus - FOCA (final version) 3.4

```
Demo Telindus
  Network
    Clients (9)
    Servers (4)
      31.0.0.0
        31.204.0.0
      Unlocated Servers
  Domains
  Roles
  Vulnerabilities
  Metadata
    Documents (78/103)
      .doc (6)
      .docx (2)
      .pdf (70)
    Metadata Summary
      Users (10)
      Folders (7)
      Printers (0)
      Software (15)
      Emails (1)
      Operating Systems (1)
      Passwords (0)
      Servers (0)
```

Attribute	Value
All users found (10) - Times found	
THIMONT Jeremy	12
Telindus-CSIRT	6
MAUNY Cedric	7
jthimont	4
id047078	9
LODE Armelle	4
VALENDUC Laurence	6
Meyer	1
Jeremy Thimont	4
Ericsson	1

4 How to protect yourself

Banner Modification

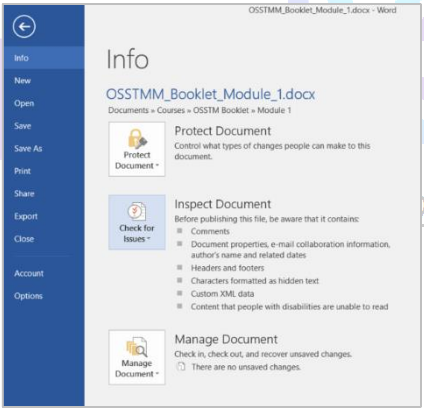
See Module 2.

Remove sensitive metadata

Metadata are a golden mine for information gathering. Prevent attacker to get results from this metadata is yet a fast and easy task.

In word, document can be inspected for hidden properties and information. Just go in File > Inspect document:

“Inspect document” suggest the user to delete hidden properties.



Info

OSSTMM_Booklet_Module_1.docx

Documents » Courses » OSSTM Booklet » Module 1

Protect Document

Control what types of changes people can make to this document.

Inspect Document

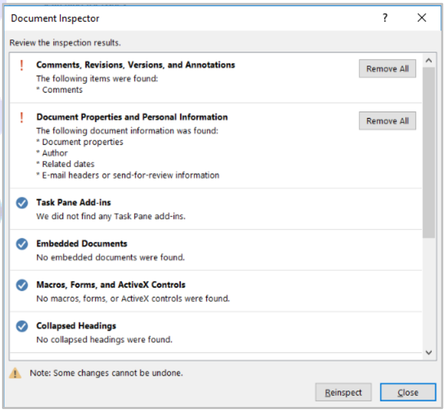
Before publishing this file, be aware that it contains:

- Comments
- Document properties, e-mail collaboration information, author's name and related dates
- Headers and footers
- Characters formatted as hidden text
- Custom XML data
- Content that people with disabilities are unable to read

Manage Document

Check in, check out, and recover unsaved changes.

There are no unsaved changes.



Review the inspection results.

Comments, Revisions, Versions, and Annotations

The following items were found:
* Comments

Document Properties and Personal Information

The following document information was found:
* Document properties
* Author
* Related dates
* E-mail headers or send-for-review information

Task Pane Add-ins

We did not find any Task Pane add-ins.

Embedded Documents

No embedded documents were found.

Macros, Forms, and ActiveX Controls

No macros, forms, or ActiveX controls were found.

Collapsed Headings

No collapsed headings were found.

Note: Some changes cannot be undone.

5 Conclusion

This section covered the very first steps of information gathering with passive data collection and analyze. This step is not to neglect as it often leads to technologies in use, emails and usernames. Some vulnerabilities can even be expected from a version found by passively grabbing banners and then by looking for vulnerabilities on this specific version.

Even if it is very difficult for a company to control all their employees on the internet, one can still try to mitigate the information leakage by doing a security awareness campaign. The goal of such a campaign is to prevent employee from having weak passwords, from reusing password and simply to pay more attention to what they are publishing on the internet.

Administrators scan also change their services banner or hide them to avoid easy information gathering by potential attackers.

This page intentionally left blank

proximus

2021 - 2022

[redacted]

This page intentionally left blank

Contact information

....
cybersecurity@telindus.lu
Security Audits and Governance Services (SAGS)
Telindus Luxembourg

Twitter: @S_Team_Approved
....
Proximus House
Z.A. Bourmicht - 18, rue du Puits Romain
L-8070 Bertrange
T +352 27 777 00
....

Damien GITTER
Technology Leader Ethical Hacking
Cybersecurity Department
GIAC Certified (GSEC, GCIA, GCIH, GPEN, GWAPT, GMOB, GXPN,GMON)
Certified OSSTMM (OPST & OPSA)
T +352 23 28 20 7784
M +352 691 777 784
damien.gitter@telindus.lu

T
G