Le Dark web: menace ou opportunité pour le secteur public ?

Dark web: threat or opportunity for the public sector?

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Smals Research

Innovation with new technologies

Consultancy & expertise

Internal & external knowledge transfer

Support for going live

2025

Dark & Deep Web

als
r society

: 1,3 billion de
Commune
'est pas payée, les
ne partie des
2h du matin, sur le

l'avenir

La FWA victime de cyber-criminels qui pensaient s'en prendre au SPW
Sur le dark web, 8Base revendique pour sa part huit nouvelles victimes, dont le Service public de Wallonie

RTL info

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Sinais

The dark web iceberg

Clear web / Surface web

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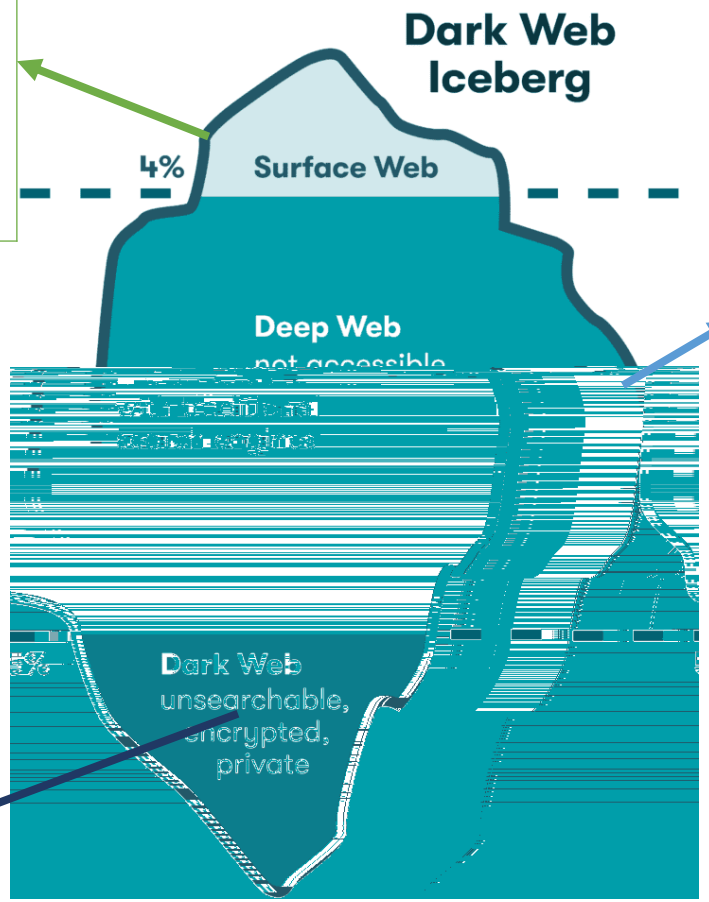

Deep web

?

Dark web

? **Tor**

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- What to protect?
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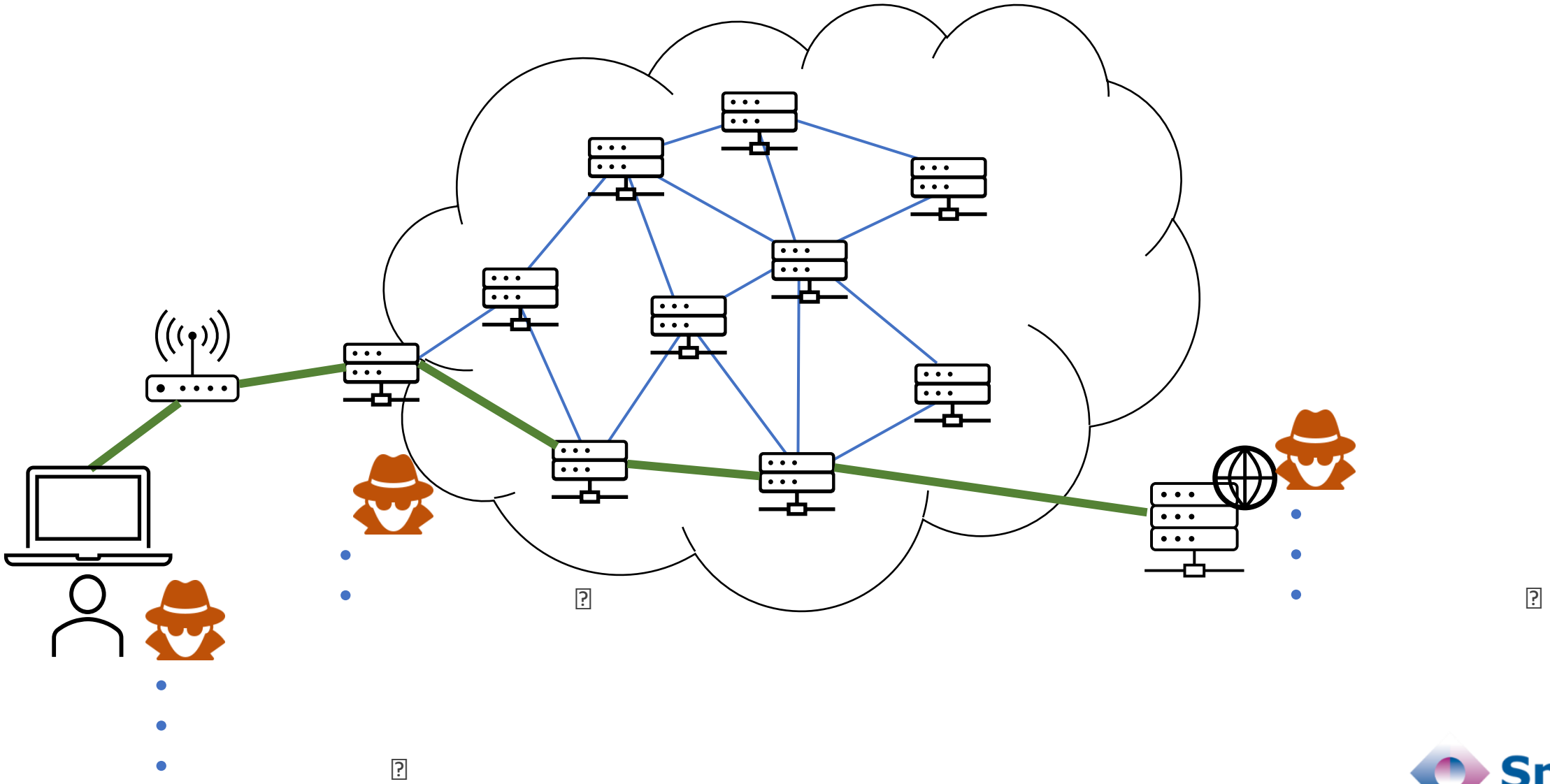
Who can observe you?



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Anonymity vs privacy

Anonymity

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Privacy

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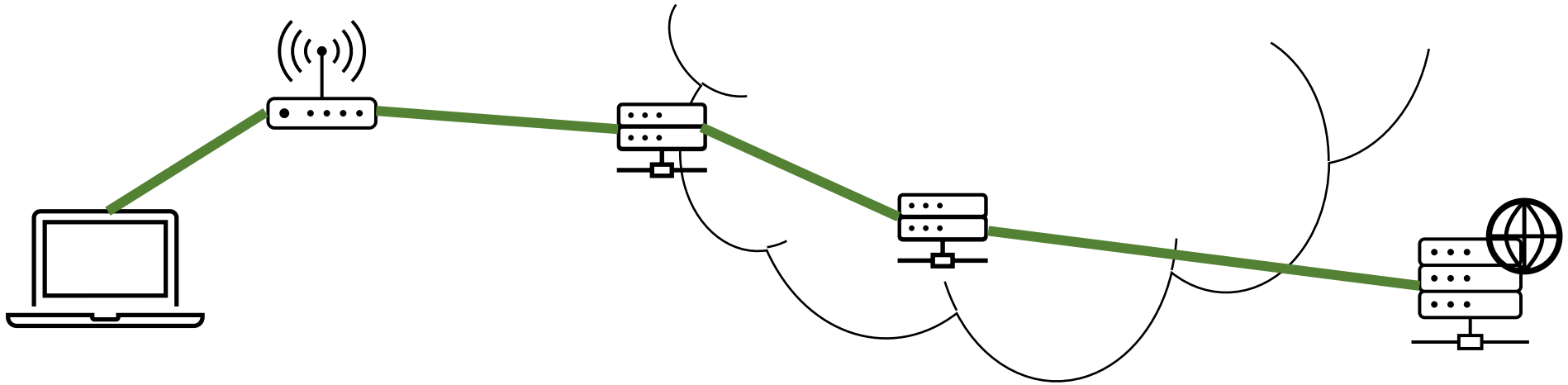
Client IP address



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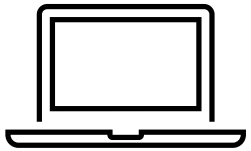
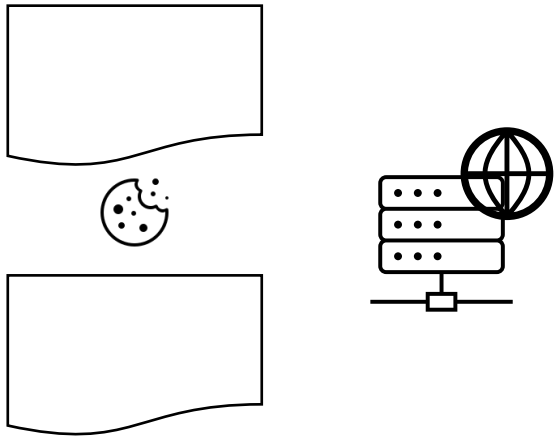
Cookies





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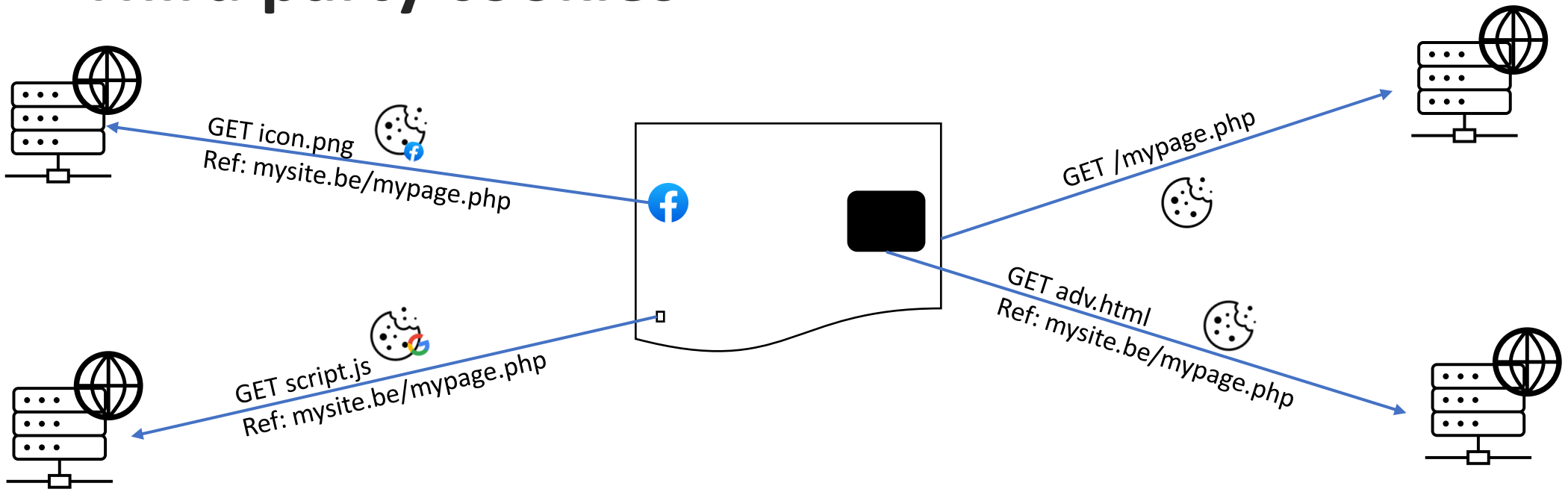
Third party cookies



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Fingerprinting

Goal

Method

Attribute	Similarity ratio	Value	
1 - User agent	[illegible]	[illegible]	
4 - Content language	0.00 %	en,en-US;q=0.9,fr-FR;q=0.8,fr;q=0.7,nl;q=0.6	
4 - Timezone	13.12 %	UTC+02:00	
6 - Canvas	0.11 %	Cwm fjordbank glyphs vext quiz, 😀 Cwm fjordbank glyphs vext quiz, 😀	
7 - List of fonts (JS)	1.02 %	Agency FB, Algerian, Arial, Arial Black, Arial Narrow, And 158 others	
19 - List of plugins	36.19 %	Plugin 0: PDF Viewer; Portable Document Format; internal-pdf-viewer. Plugin 1: Chrome PDF Viewer; Portable Document Format; internal-pdf-viewer. Plugin 2: Chromium PDF Viewer; Portable Document Format; internal-pdf-viewer. Plugin 3: Microsoft Edge PDF Viewer; Portable Document Format; internal-pdf-viewer. Plugin 4: WebKit built-in PDF; Portable Document Format; internal-pdf-viewer.	
20 - Screen width	4.59 %	1536	
21 - Screen height	4.18 %	864	

Yes! You are unique among the 4108223 fingerprints in our entire dataset.

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Local traces

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  - DNS cache
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```
PS C:\Users\vab> ipconfig /displaydns

Windows IP Configuration
```

```
    www.smalsresearch.be
    ----------------------------------------
    Record Name . . . . . : www.smalsresearch.be
    Record Type . . . . . : 1
    Time To Live  . . . . : 35421
    Data Length . . . . . : 4
    Section . . . . . . . : Answer
    A (Host) Record . . . : 185.22.109.12
```

Who can see what?

	ISP/Access point *	Website	Trackers	Other users

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-
- How to protect?
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HTTPS

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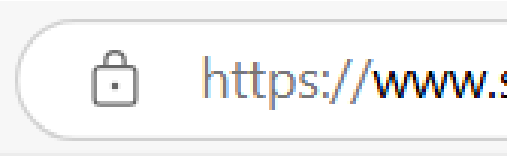

	ISP/Access point	Website	Trackers	Other users

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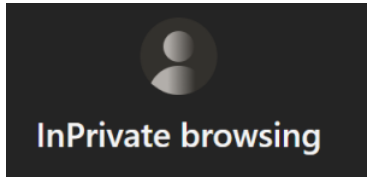
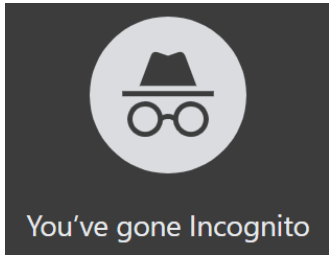
Private browsing





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	ISP

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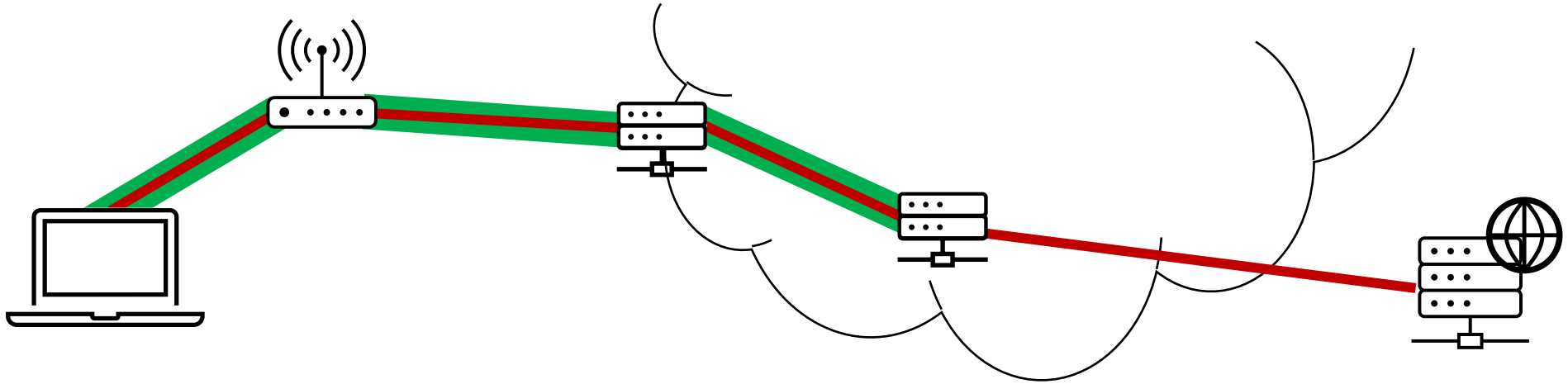
Virtual Private Network (VPN)



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Virtual Private Network (VPN)

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	ISP/Access point	Website	Trackers	Other users

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- Is that enough?

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Is that enough?

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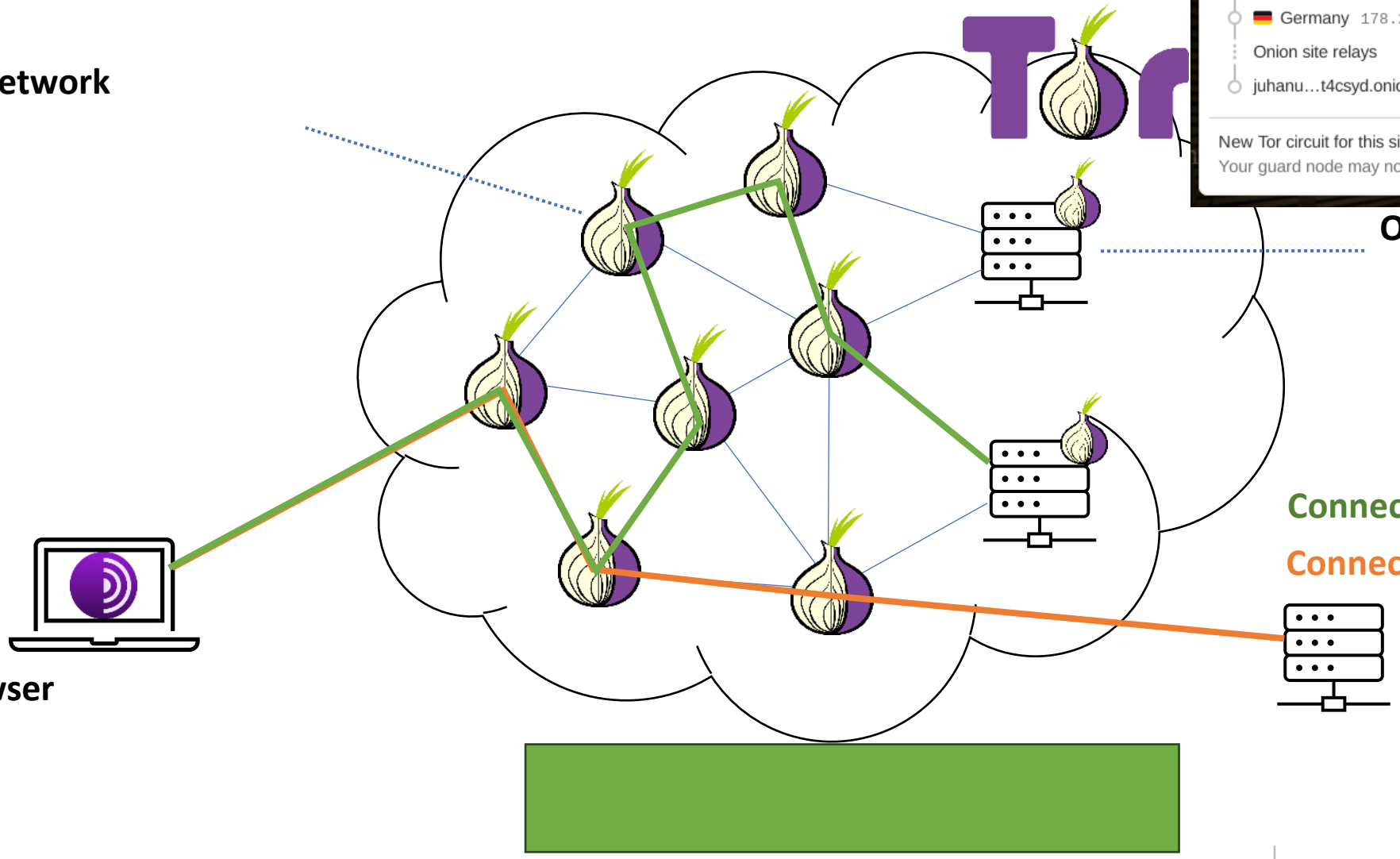
Tor: 3 components

Tor Network

Onion/Hidden services:



Connection to a dark site

Connection to a clear site

Tor browser

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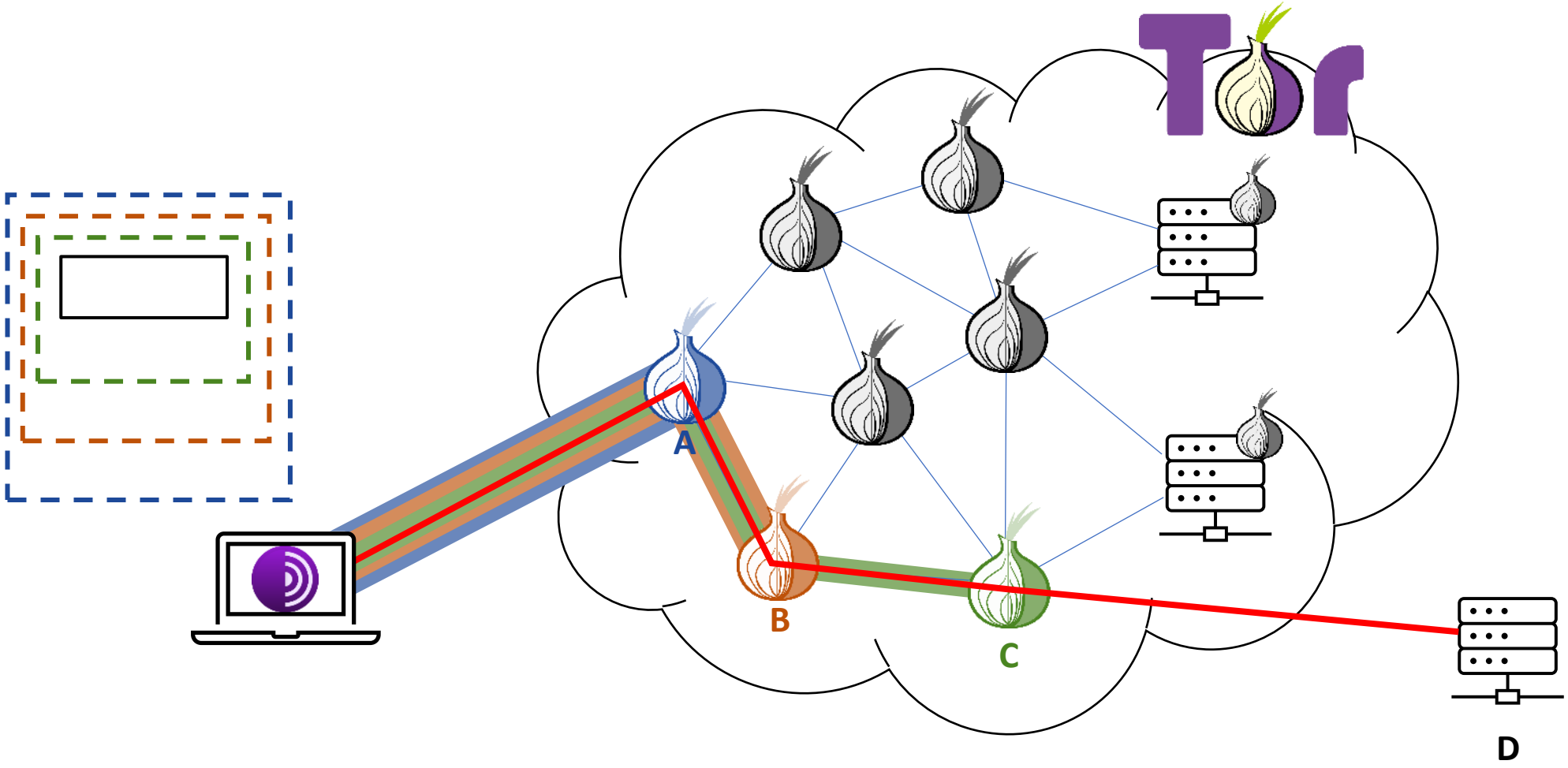
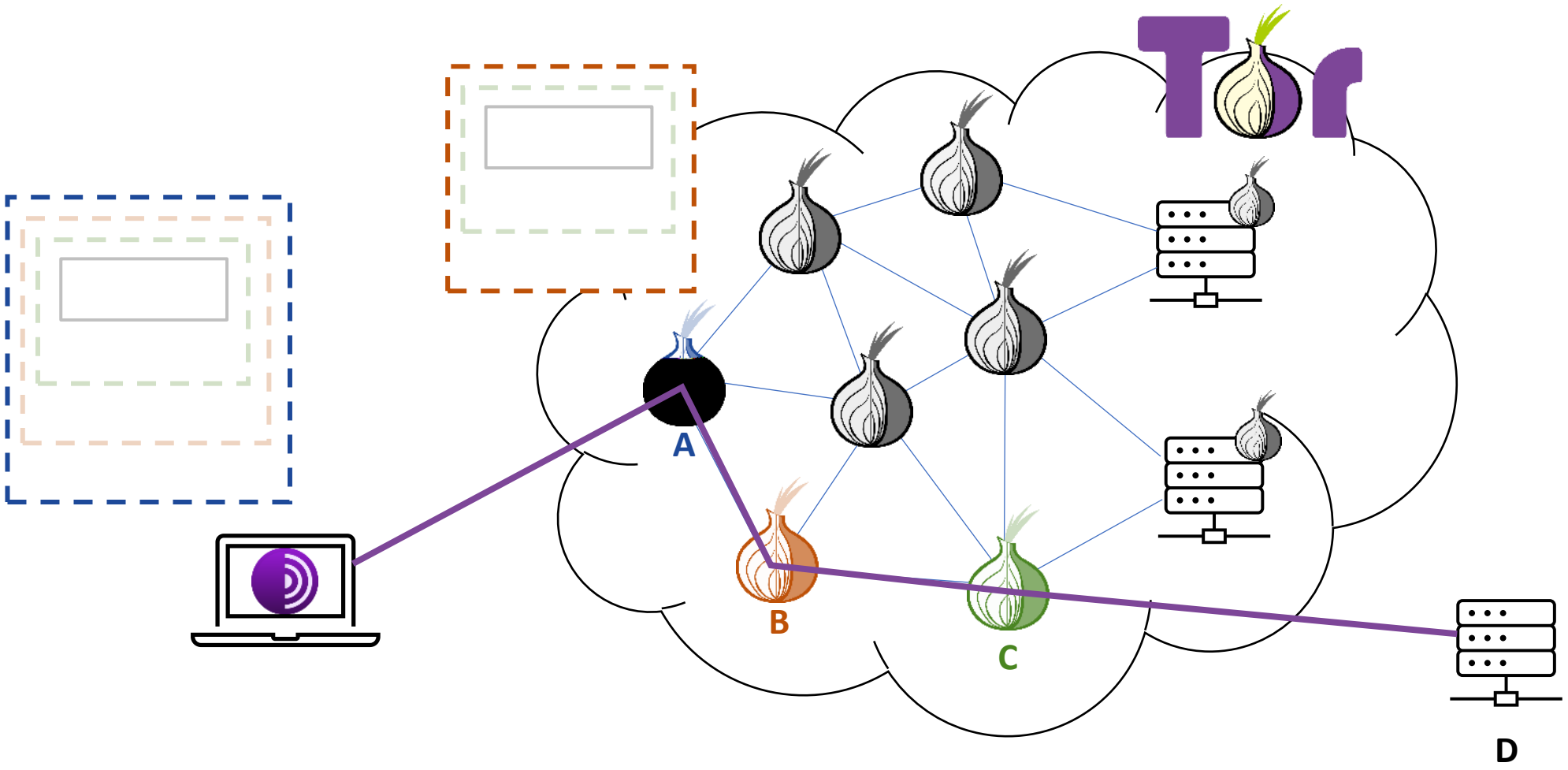
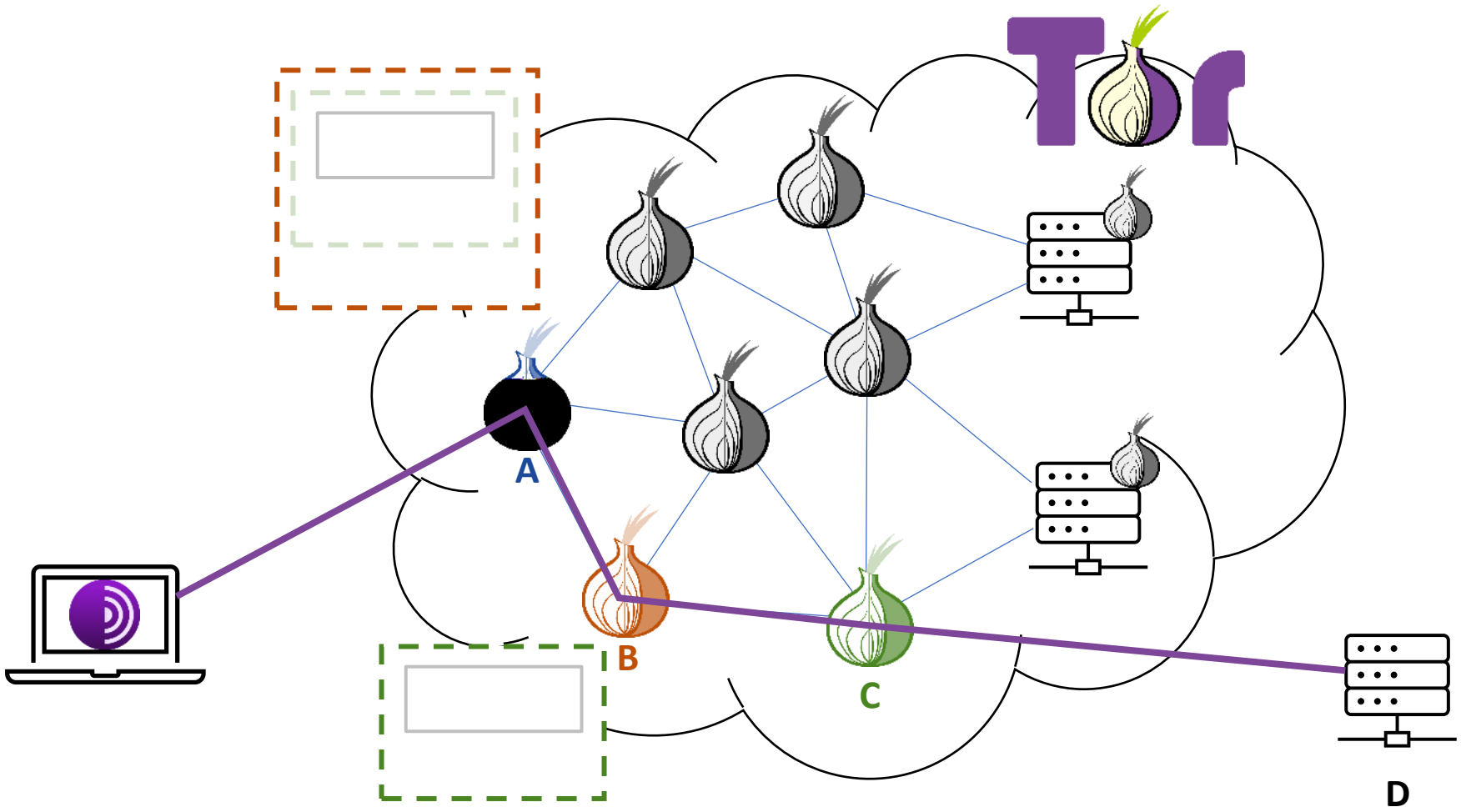
Tor: onion pealing



Tor: onion pealing



Tor: onion pealing



Tor: onion pealing

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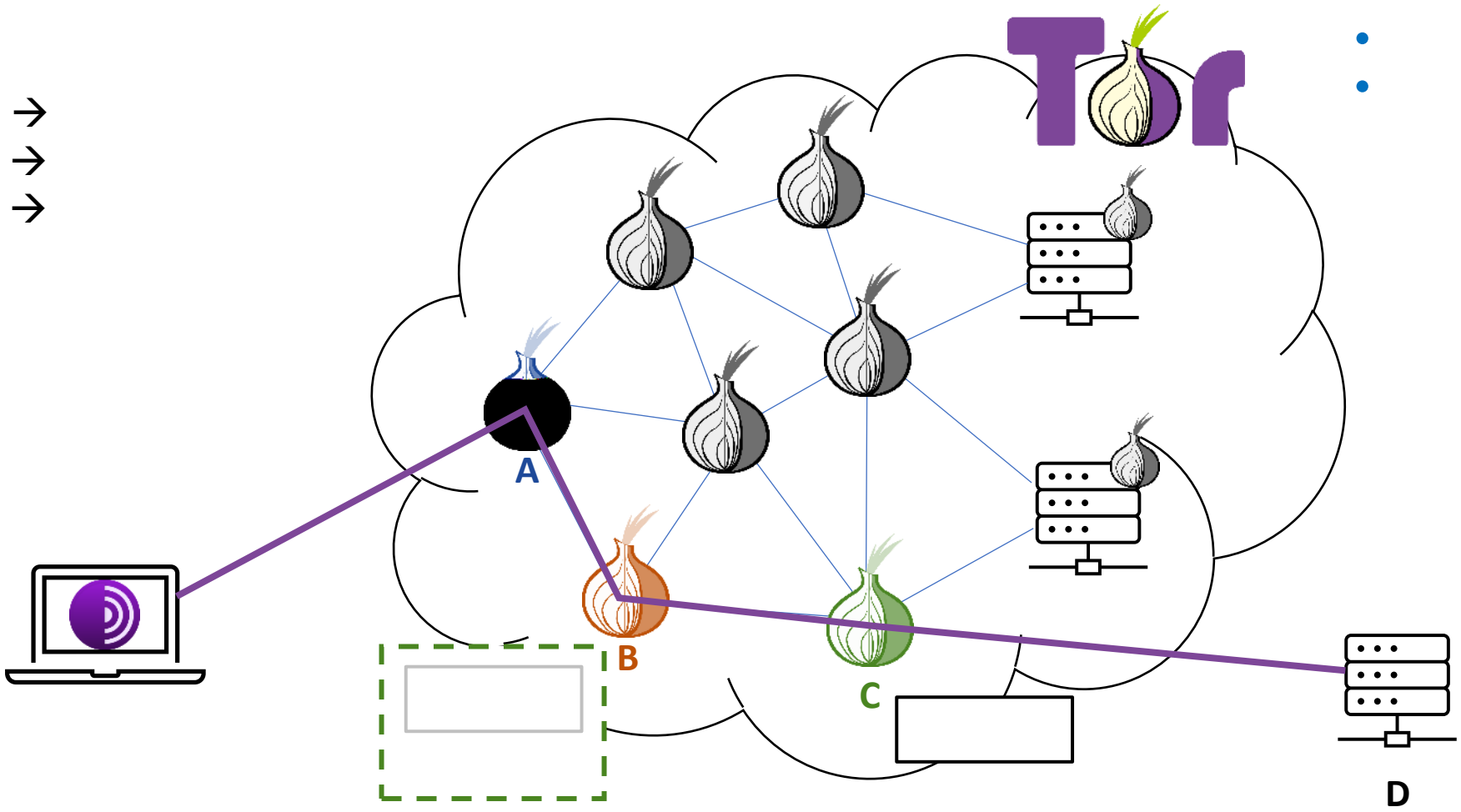

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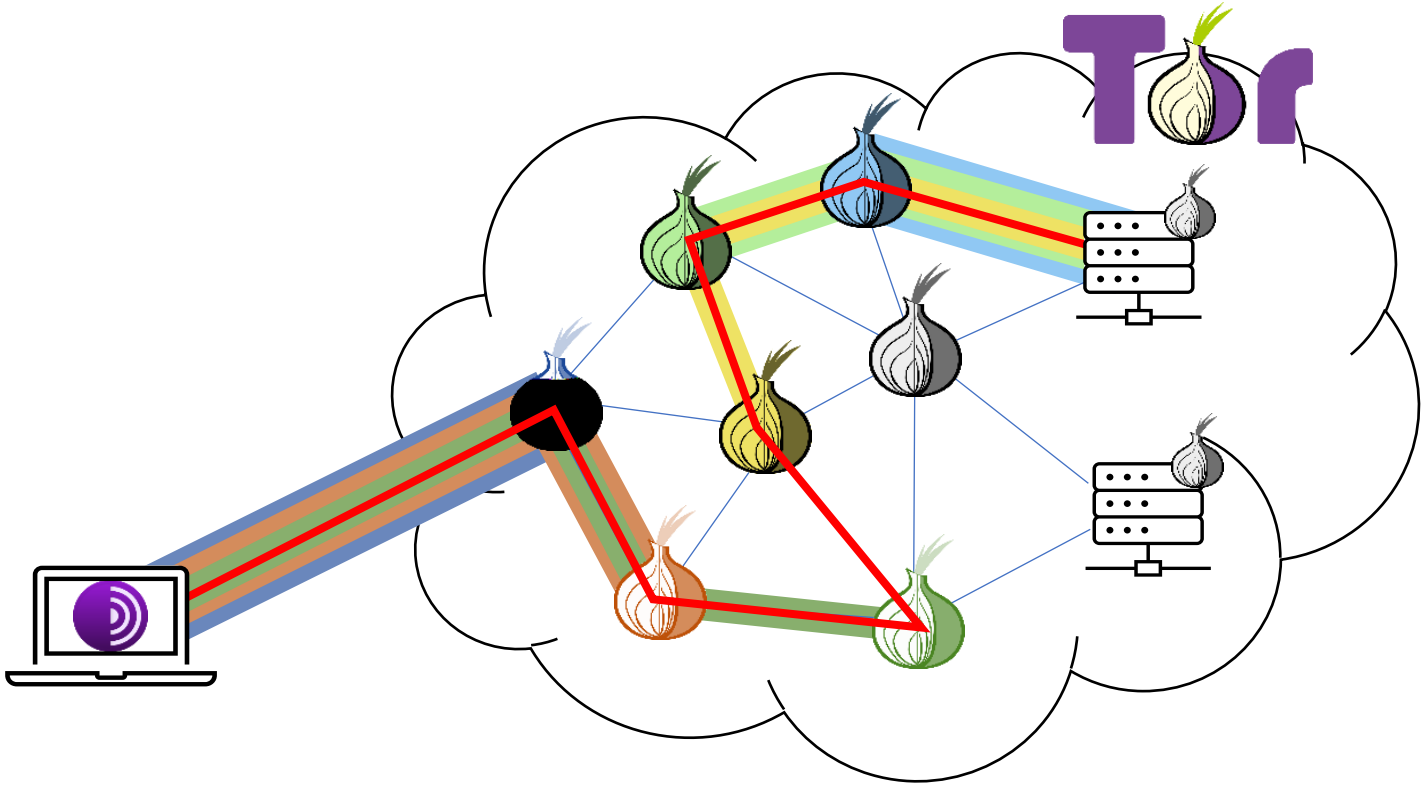
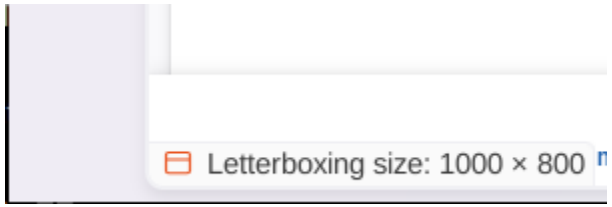
Tor: Hidden service



Preventing fingerprinting

	Chrome	Tor
	And 158 others	And 27 others
	Cwm fjordbank glyphs vext quiz, 😀 Cwm fjordbank glyphs vext quiz, 😀	



Tails

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		ISP/Access point	Website	Trackers	Other users

Who can see what with Tails?

	ISP/Access point *	Website	Trackers	Other users
	_____	_____	_____	
	_____ _____			
		_____ _____		_____
			_____ _____ _____	
		_____ _____	_____ _____ _____	
				_____

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Required precaution

To stay anonymous, Tor users have to compartmentalise their online live!

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Bomb alert at Harvard, 2013

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Silk road founder (Ross W. Ulbricht, 2011-2013)

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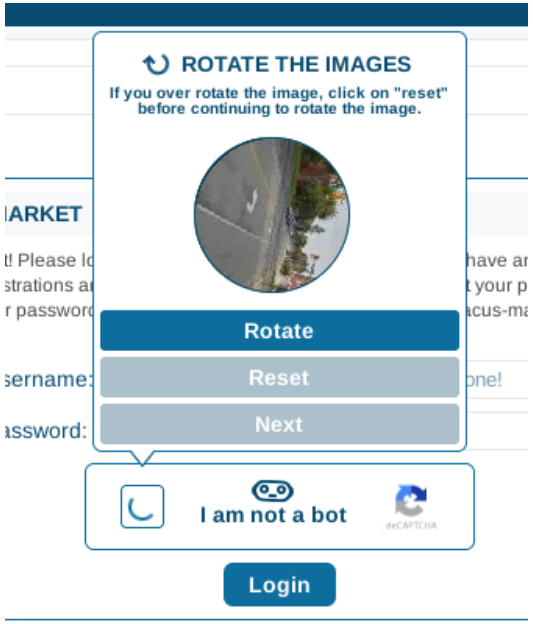
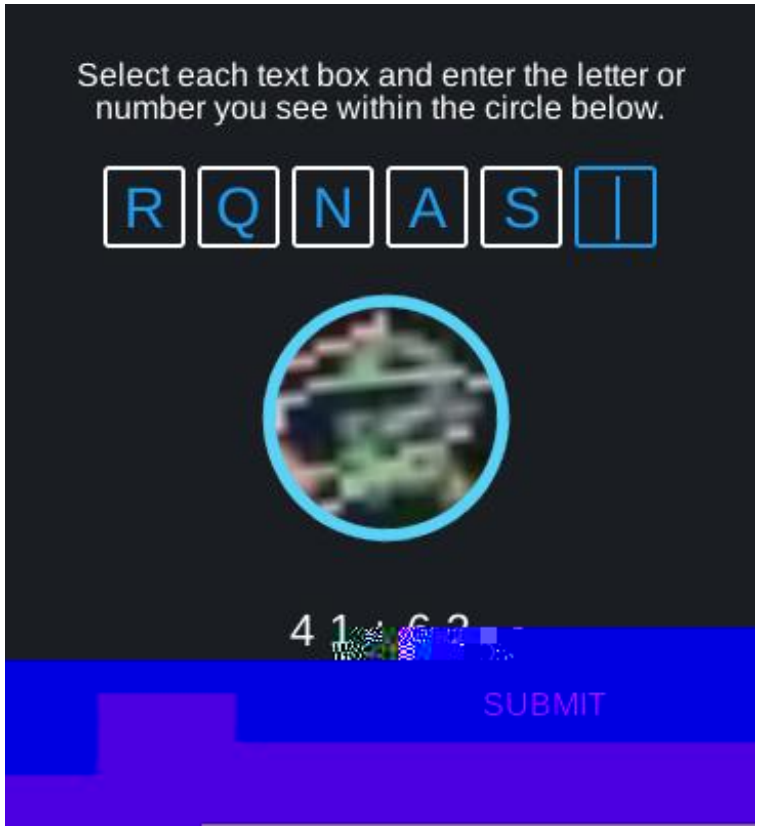
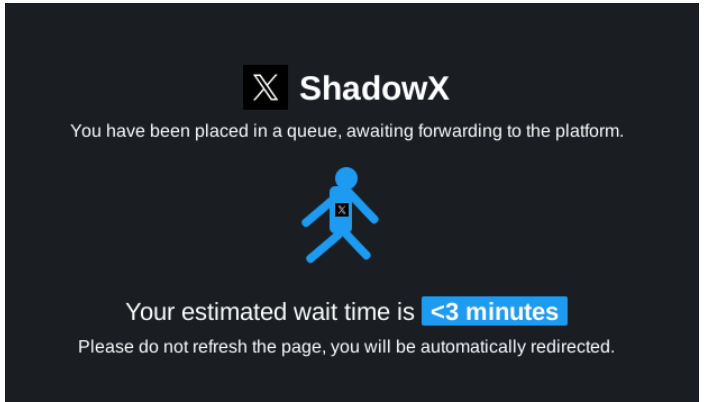
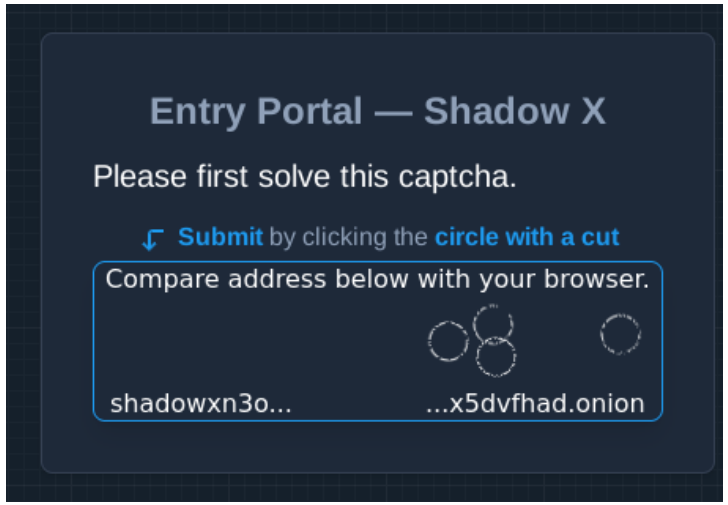
Tor: uncomfortable user experience

Tor: uncomfortable user experience









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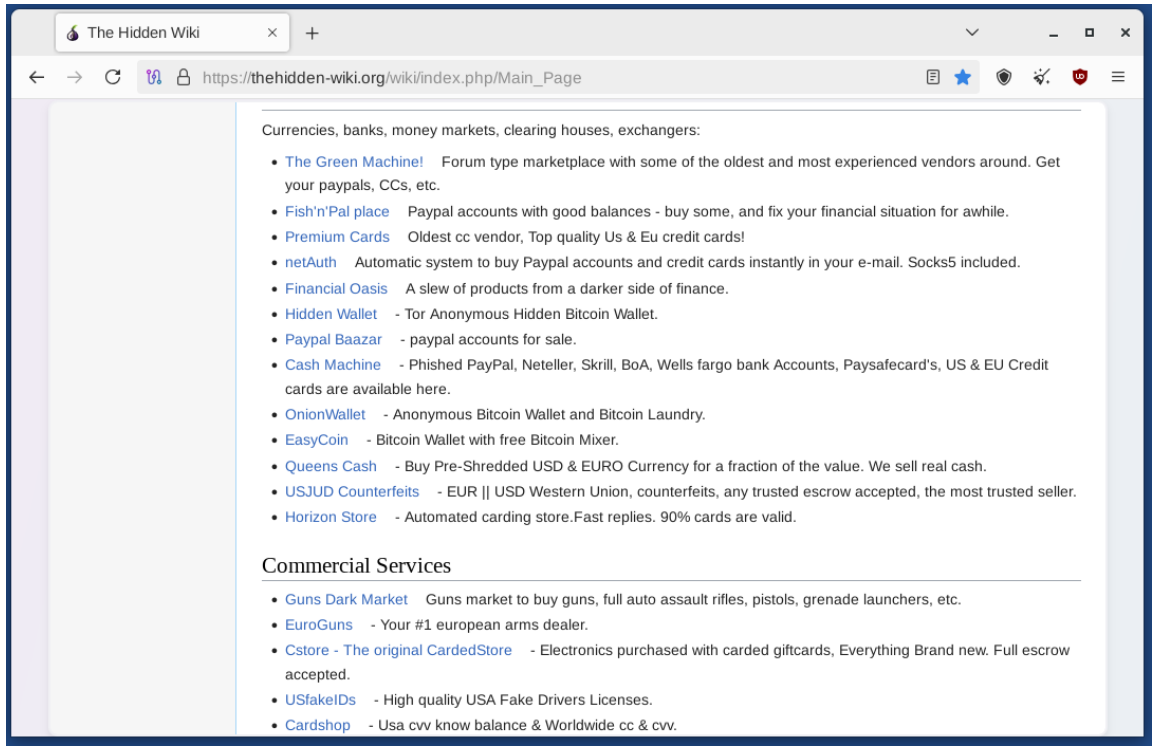
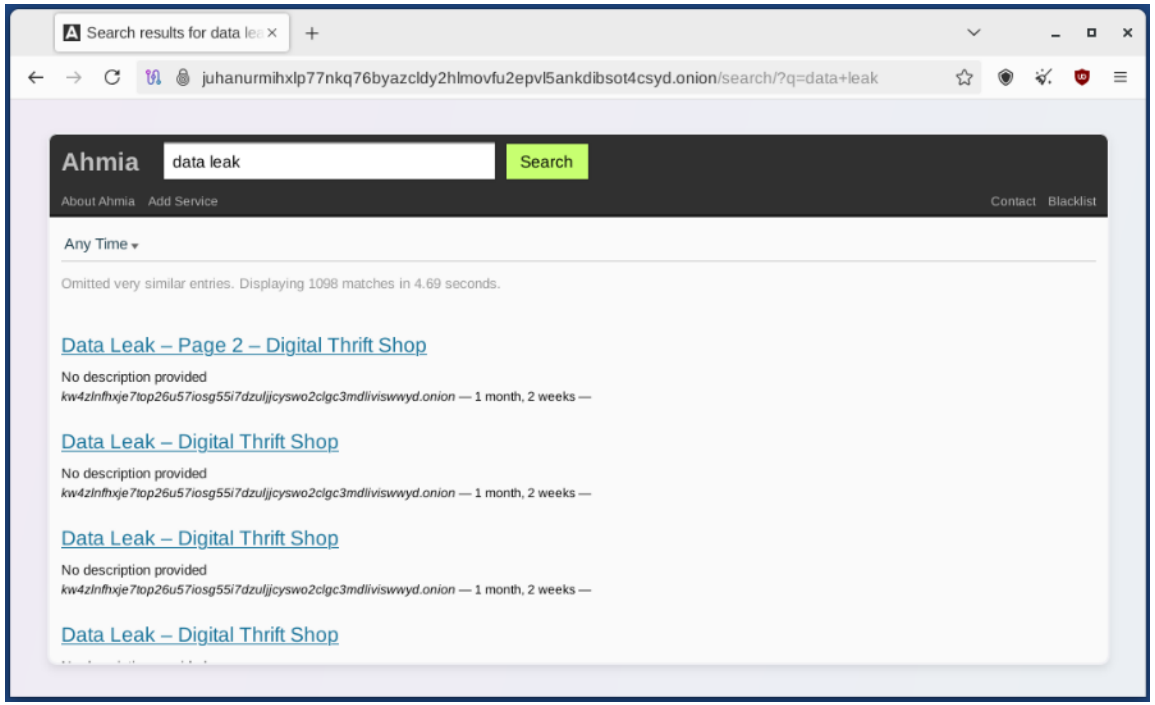
Entry points

Hidden wiki



Search engines



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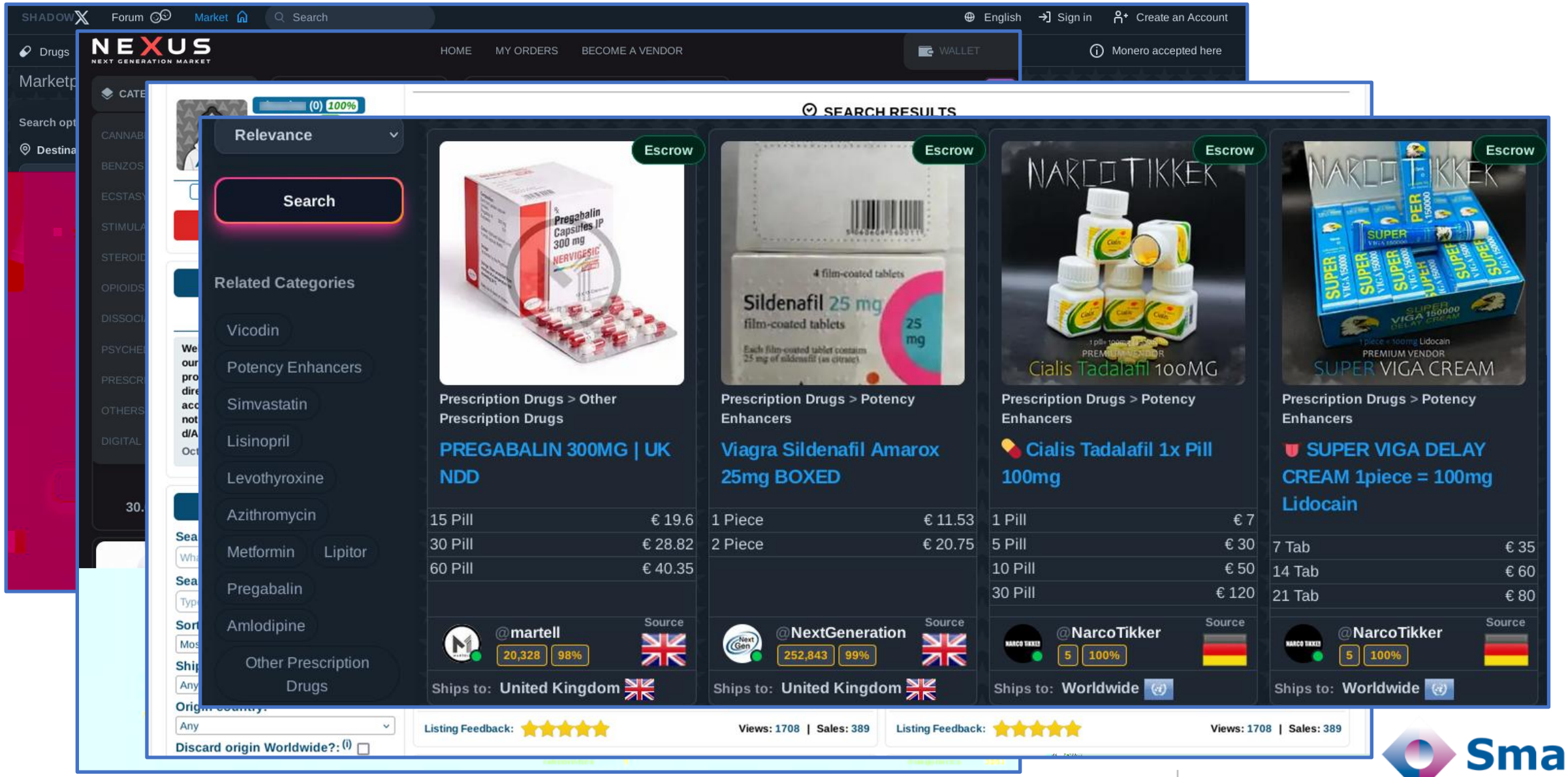
Markets



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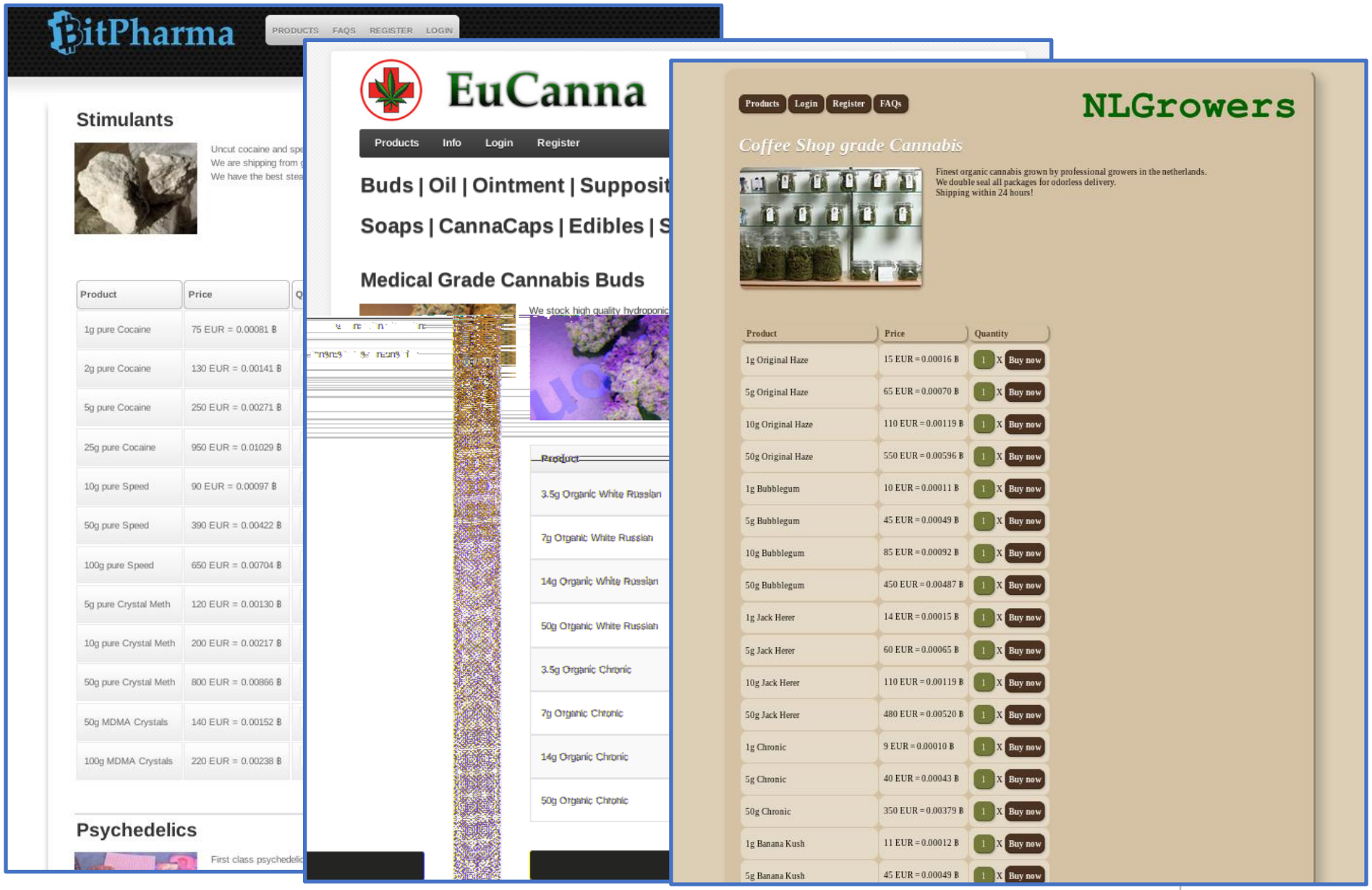
ICT for society

Markets



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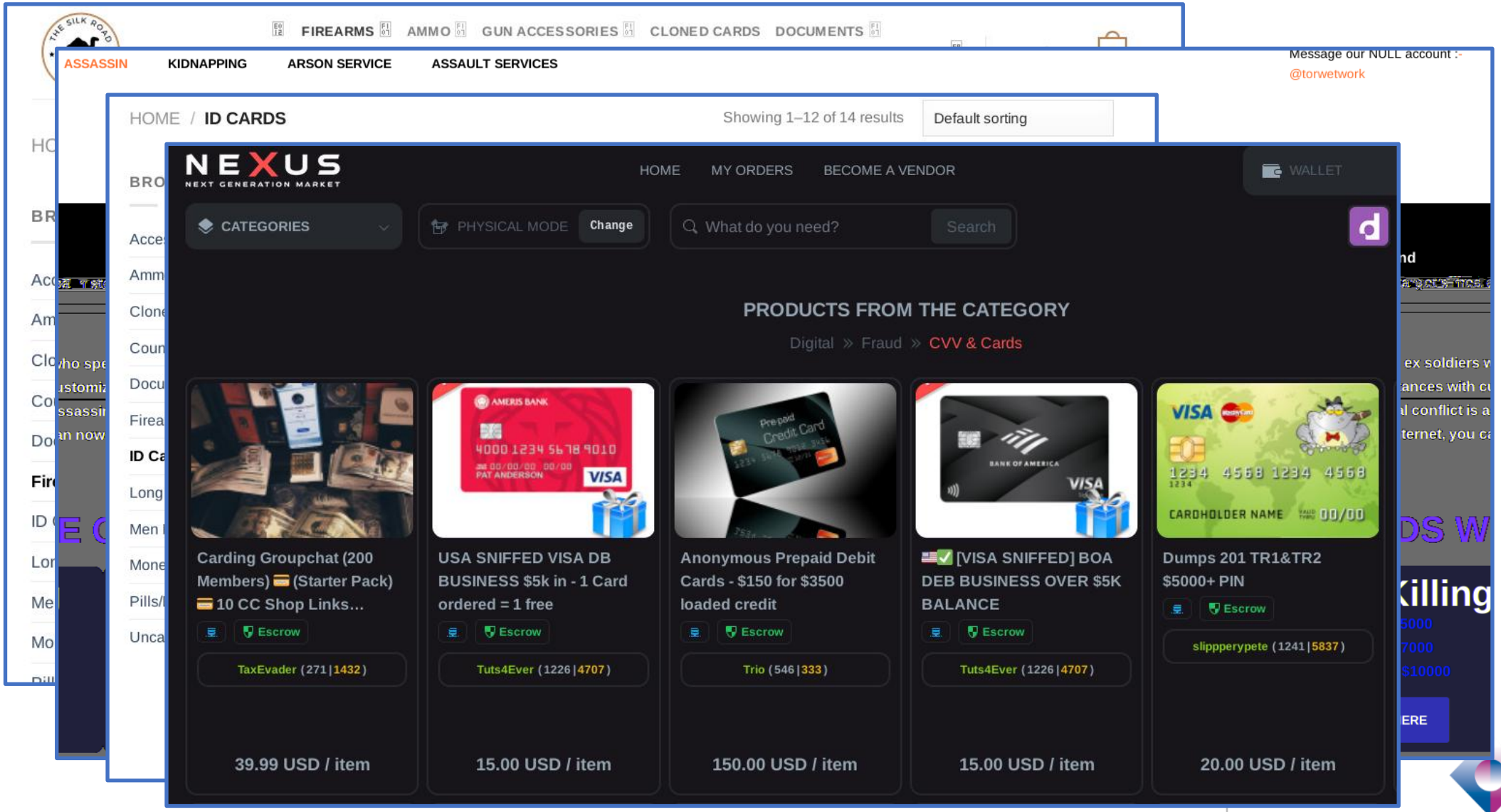
Markets



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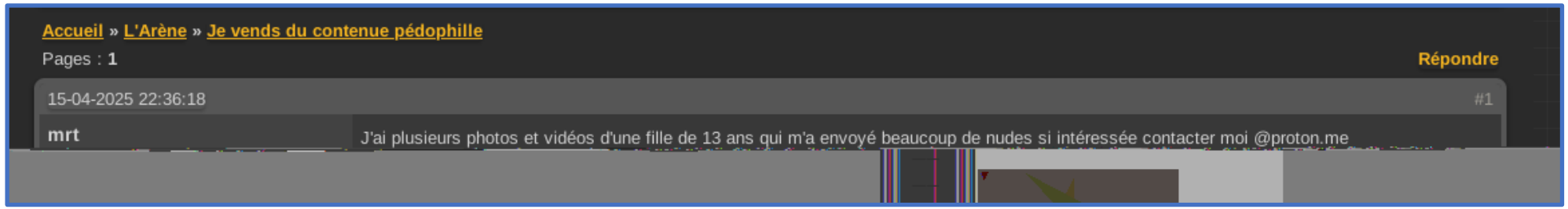
Forums


Accueil » L'Arène » Je vends du contenue pédophille
Pages : 1
Répondre
15-04-2025 22:36:18
#1
mrt
J'ai plusieurs photos et vidéos d'une fille de 13 ans qui m'a envoyé beaucoup de nudes si intéressée contacter moi @proton.me

dread
frontpage
all
dread
/d/coke
Wiki/Guides Index
!!!RULES!!!
Review/Image Posting Guide
Vendor Flair Application
1
Cocaine prices are crashing in almost all of Europe!
by /u/DrugMahal • 4 weeks ago in /d/coke
Despite the multiple big European busts in cocaine trafficking world, with latest two famous seizures in Portugal [a submarine with 1.6 tonnes] and France [Dunkirk port 10 Tonnes].
In cities like Rotterdam and Antwerp a kilogram of cocaine is selling less than 18000 Euro and registered a price of 15000 Euro in some cases.

Data leaks (credentials)

```
terena .com:Adip @
simonc l.fr:Mago
majorc ail.com:C
salam otmail.co 1@*
alials ok.com:Al
ghenav l@outlook ova
housse k.com:Hal
florer l.com:Rob
mark15 com:xs.Ma
jahmau Devilrays
star.c l.co.uk:W
iem_l- allstadt. ein
birig: @mv-hall sikve
sshhoc no-barbin 8
darsi: nempata.c g123
sandra 5@mv-hall sikve
huaice veiwoduzu
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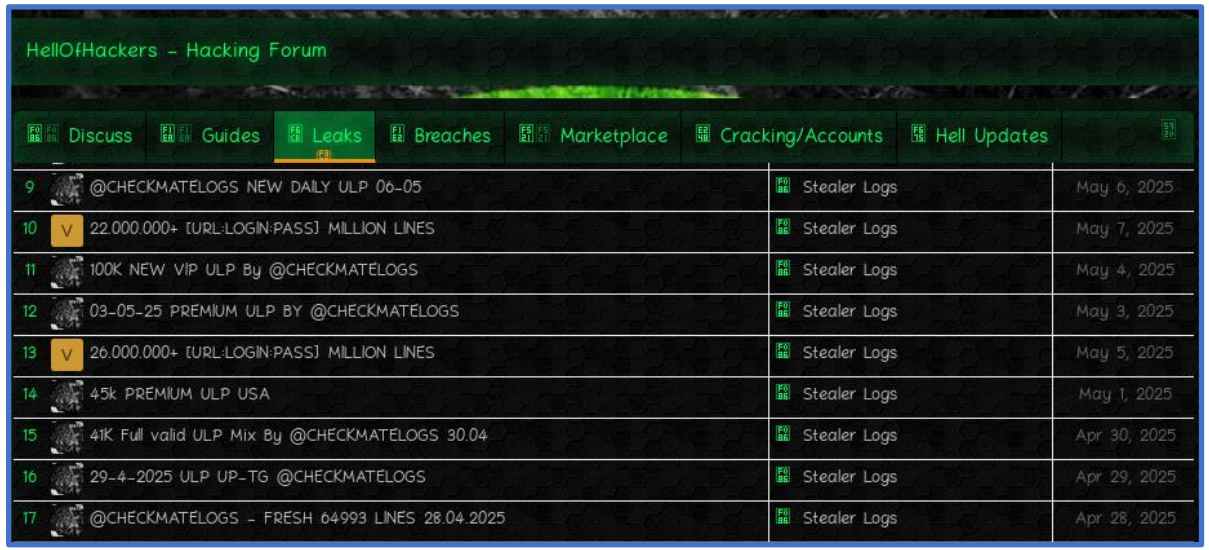

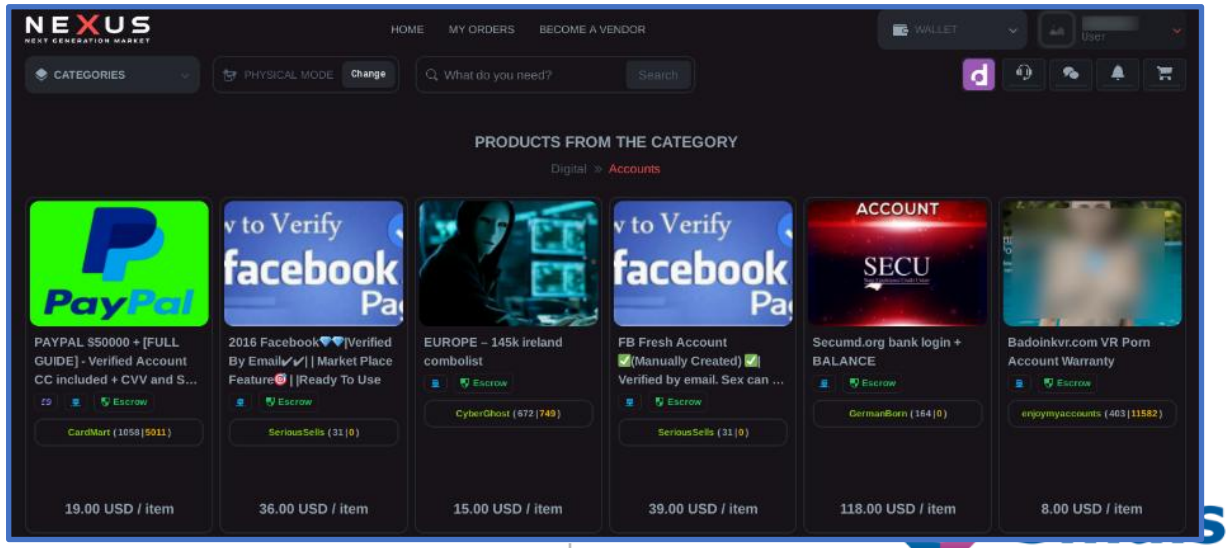

Data leaks (full dumps)

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> 50 public agencies

~ Some public Belgian agencies

→

~ 110 private Belgian companies

→

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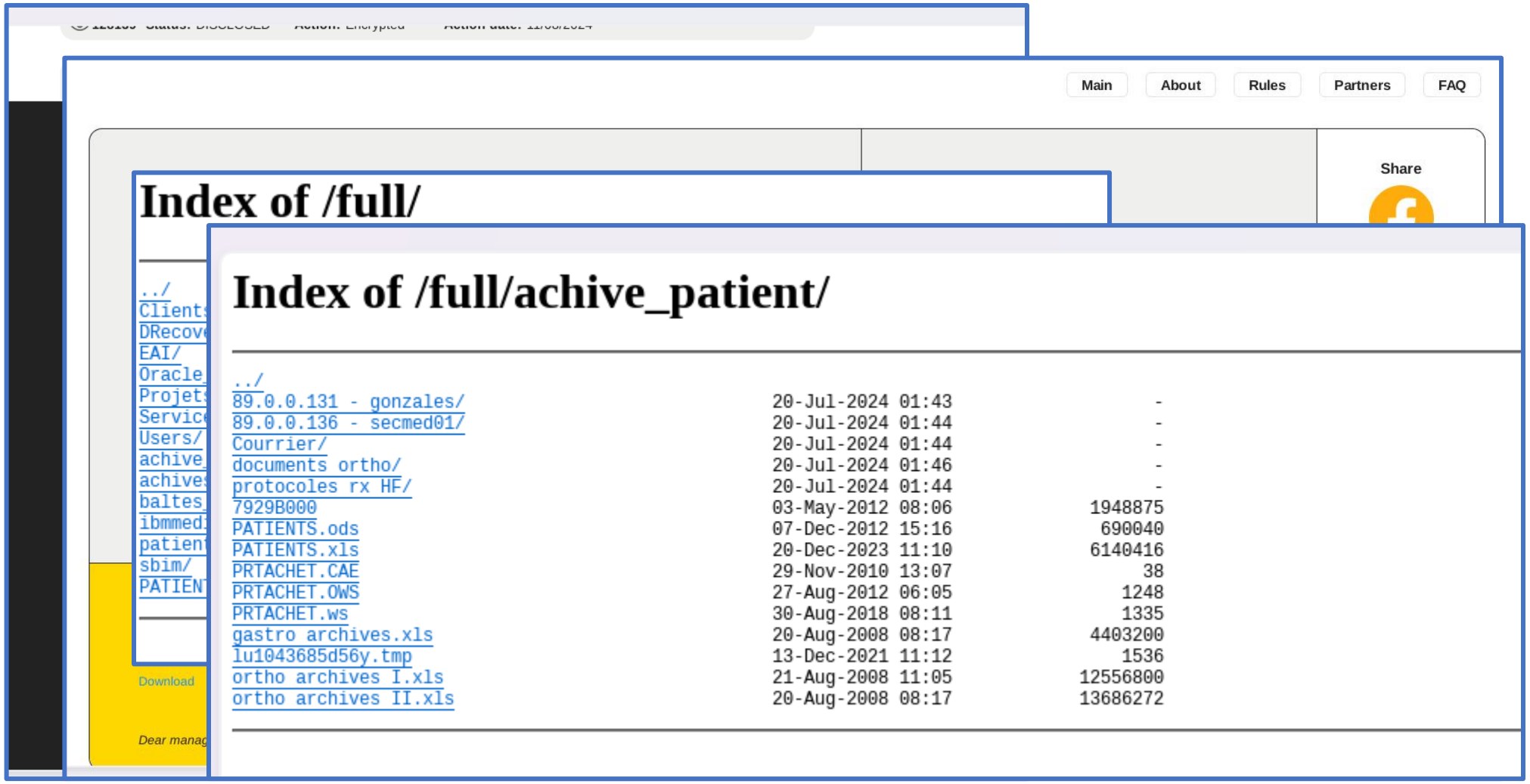
Data leaks (health example)



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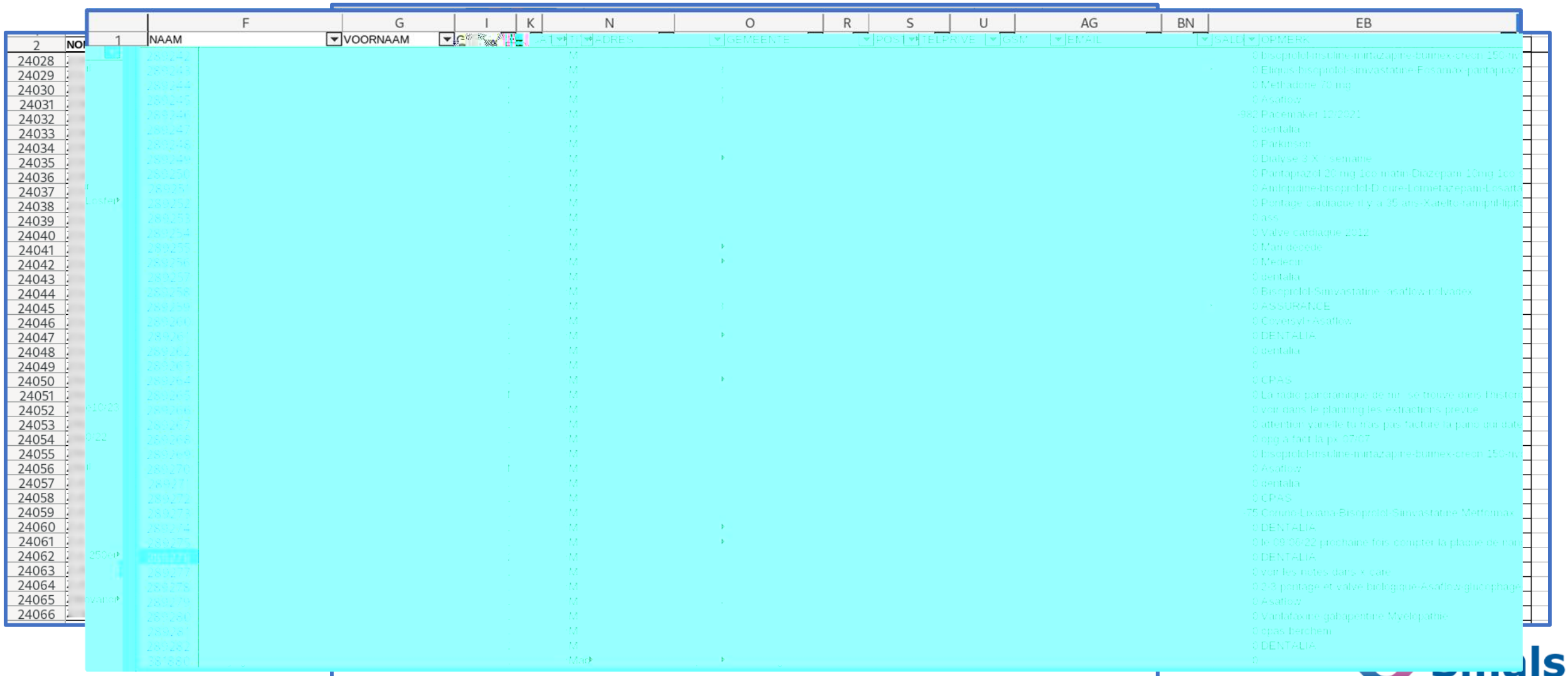
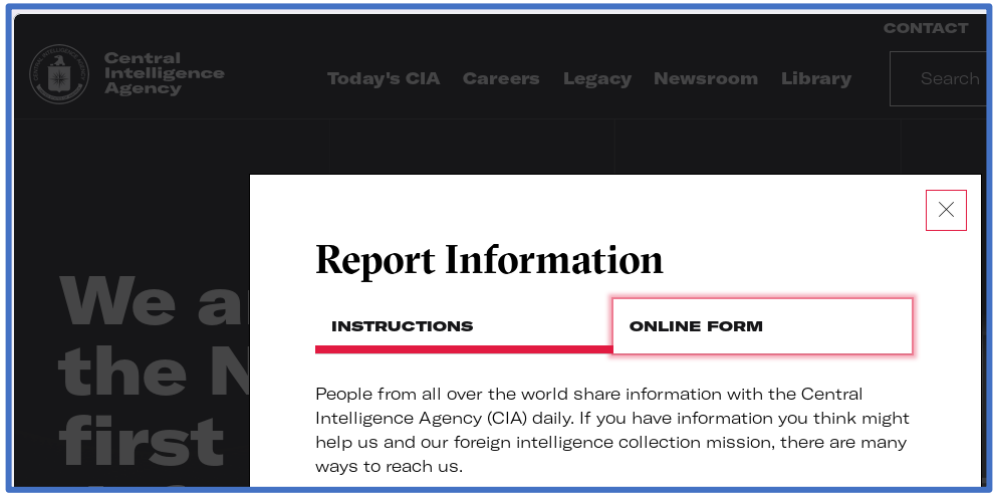
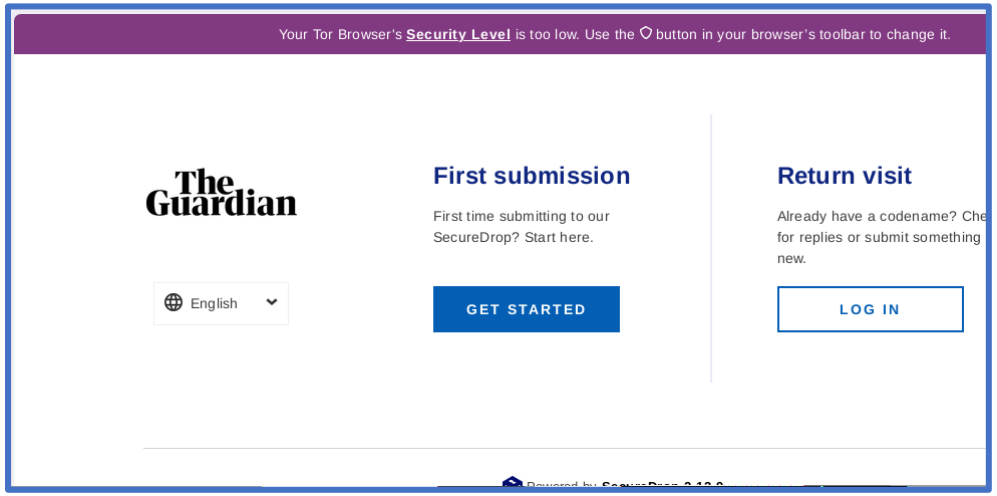
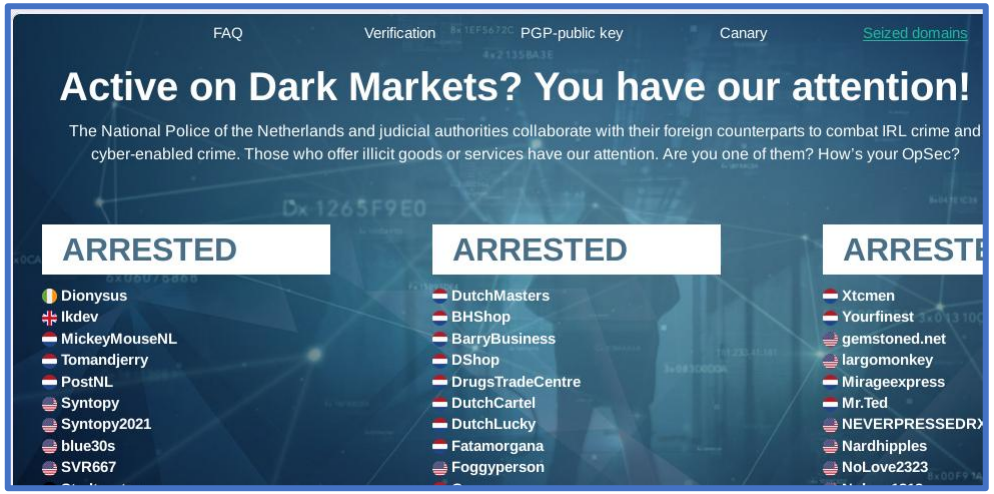
Data leaks (health example)



Authorities/Whistleblowing







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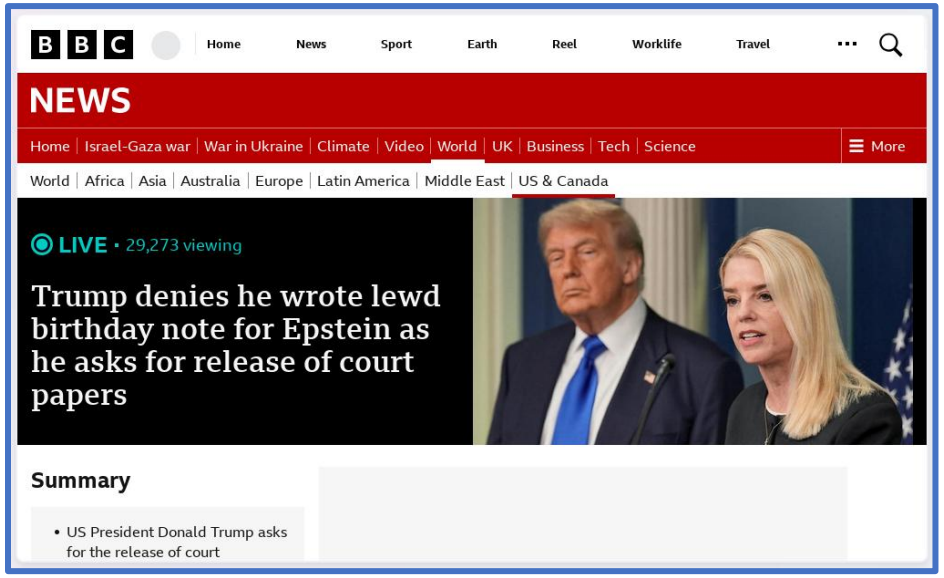
Media



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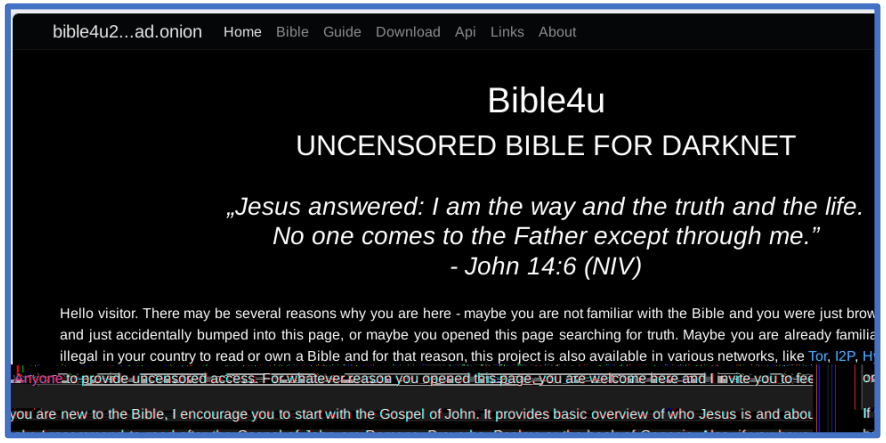
Activism



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Who’s active in Belgium

Sciensano (2020)

SPF Finance (2019)

Myria (Federal Migration Center, 2023)

AFMPS (2025)

SPF Finance (2017)

Bpost (2020)

SPF Justice (2016)

SPF Santé publique (2024)

Police/FCCU (2017)

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CCB/CERT

CENTRE FOR CYBERSECURITY BELGIUM

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Police/FCCU

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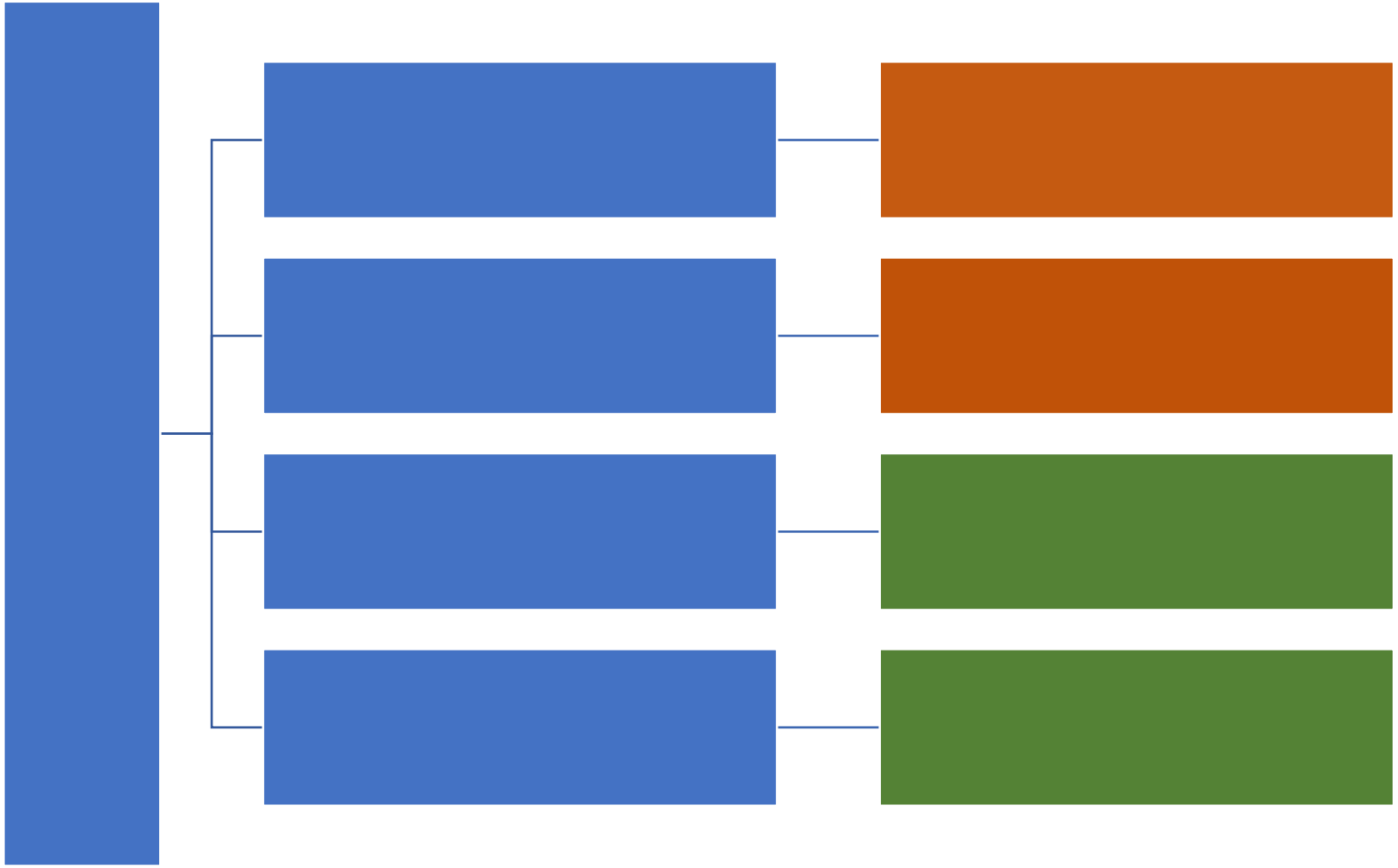
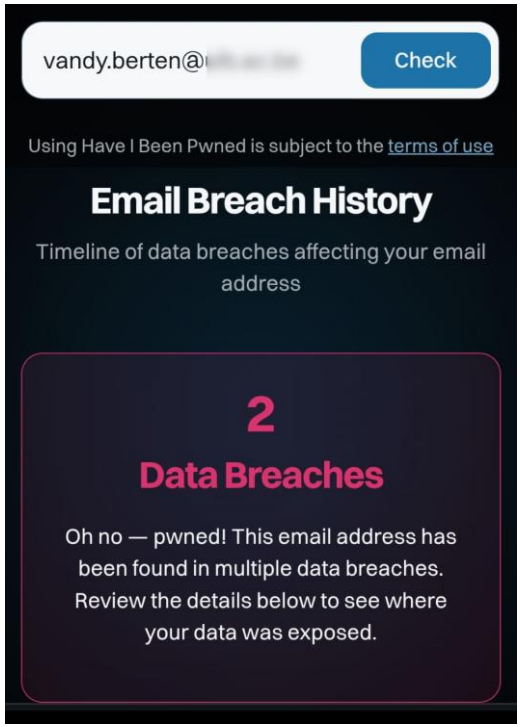
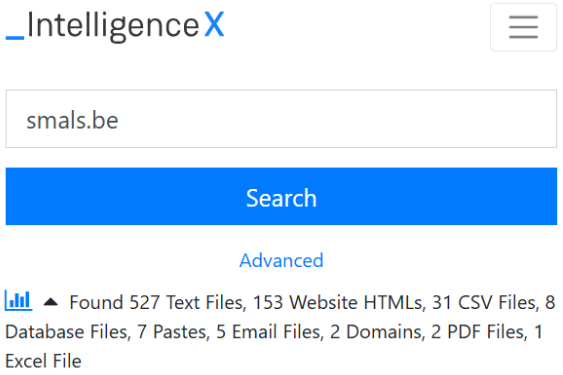
Should I go to Dark Web?







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Legal comments

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Threat or Opportunity?

Threat

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Opportunity

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Conclusion (as a threat)

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Conclusion (as an opportunity)

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Management summary (1/2)

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Management summary (2/2)

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Thank you for your attention!

Please share your feedback with us!

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