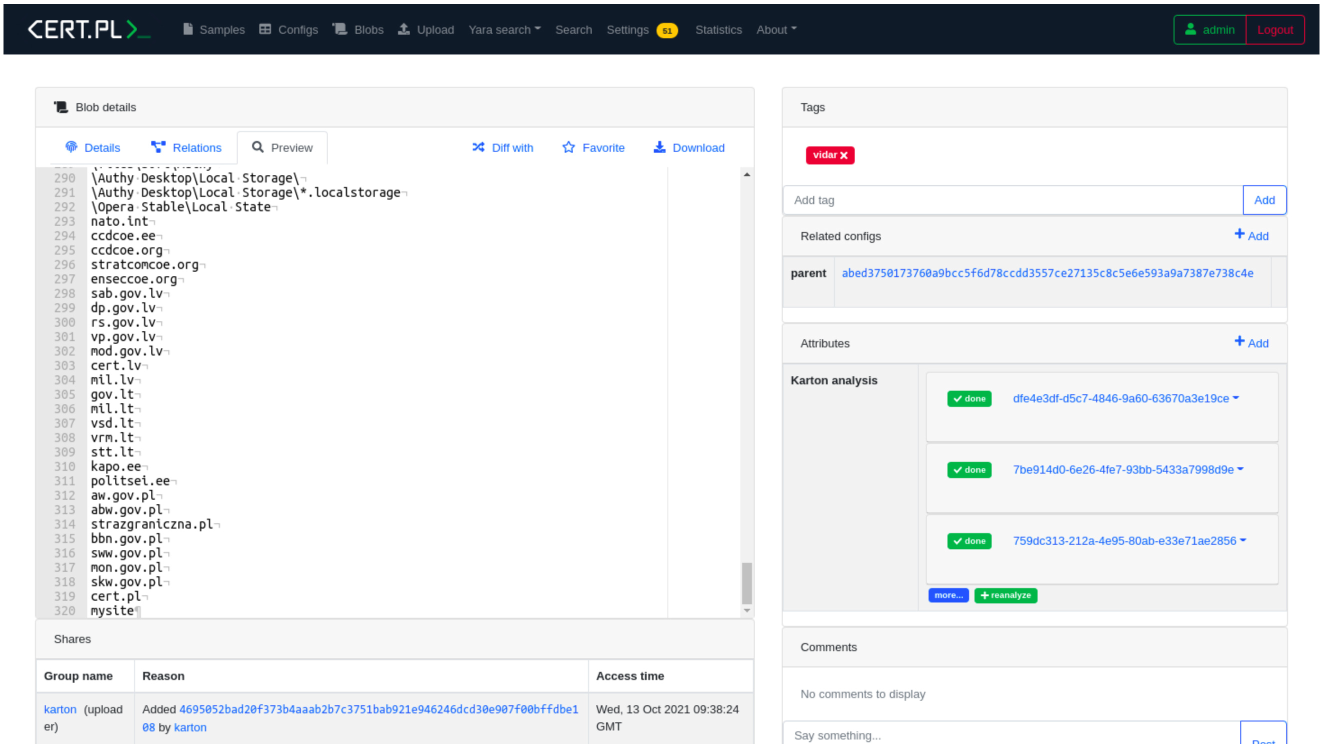
Vidar stealer campaign targeting Baltic region and NATO entities

cert.pl/en/posts/2021/10/vidar-campaign/

While working on our automatic configuration extractors, we came across a rather strange-looking Vidar sample.

The decrypted strings included domain names of such organizations as the NATO Strategic Communications Centre of Excellence, Border Guard of Poland, Estonia and Latvia, and Ministry of the Interior of Lithuania.



```
\Authy·Desktop\Local·Storage\¬
\Authy·Desktop\Local·Storage\*.localstorage¬
\Opera·Stable\Local·State¬
nato.int¬
ccdcoe.ee¬
ccdcoe.org¬
stratcomcoe.org¬
enseccoe.org¬
sab.gov.lv¬
dp.gov.lv¬
rs.gov.lv¬
vp.gov.lv¬
mod.gov.lv¬
cert.lv¬
mil.lv¬
gov.lt¬
mil.lt¬
vsd.lt¬
vrm.lt¬
stt.lt¬
kapo.ee¬
politsei.ee¬
aw.gov.pl¬
abw.gov.pl¬
strazgraniczna.pl¬
bbn.gov.pl¬
sww.gov.pl¬
mon.gov.pl¬
skw.gov.pl¬
cert.pl¬
mysite¶
```

Shares

Group name	Reason	Access time
karton (uploader)	Added 4695052bad20f373b4aaab2b7c3751bab921e946246dcd30e907f00bffdbe108 by karton	Wed, 13 Oct 2021 09:38:24 GMT

parent	abed3750173760a9bcc5f6d78ccdd3557ce27135c8c5e6e593a9a7387e738c4e

Karton analysis	✓ done dfe4e3df-d5c7-4846-9a60-63670a3e19ce ✓ done 7be914d0-6e26-4fe7-93bb-5433a7998d9e ✓ done 759dc313-212a-4e95-80ab-e33e71ae2856

No comments to display

Say something...

Automatically extracted strings from a Vidar sample

List of targeted hostnames:

```
ccdcoe.ee
ccdcoe.org
stratcomcoe.org
enseccoe.org
sab.gov.lv
midd.gov.lv
dp.gov.lv
rs.gov.lv
vp.gov.lv
mod.gov.lv
cert.lv
mil.lv
gov.lt
mil.lt
vsd.lt
vrm.lt
stt.lt
kapo.ee
politsei.ee
aw.gov.pl
abw.gov.pl
strazgraniczna.pl
bbn.gov.pl
sww.gov.pl
mon.gov.pl
skw.gov.pl
cert.pl
```

Vidar Stealer

During this analyiss we'll be looking at sample `b115531ef23c109fb58c392379b7f55eff11169e1317b263da60edd9ac98f6b1`.

Vidar Stealer, as the name suggests, is a malware family that is designed to steal and exfiltrate user information. This includes data such as credentials, cryptocurrency wallets and browser cookies.

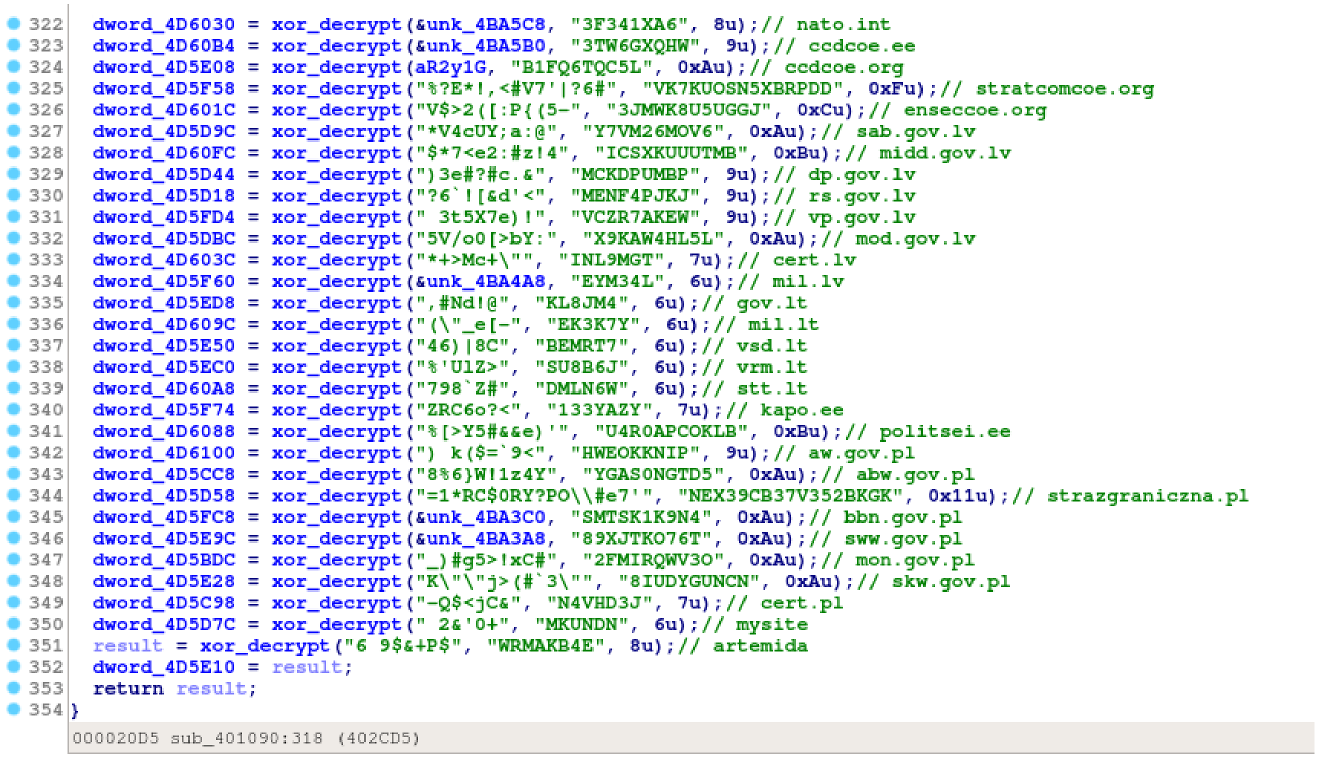
It's widely believed that the family evolved from Arkei Stealer - another infostealer with similar capabilities. There is an excellent blogpost[1] by @fumik0_ describing the similarities and differences.

While previous versions of the malware used to have C&C server address hardcoded directly in the sample, these days, it uses a bit more novel approach where the address is fetched from a social media platform like FACEIT or Mastodon.

String decryption and usage

Let's see how the strings in question were extracted and what are the semantics behind their usage.

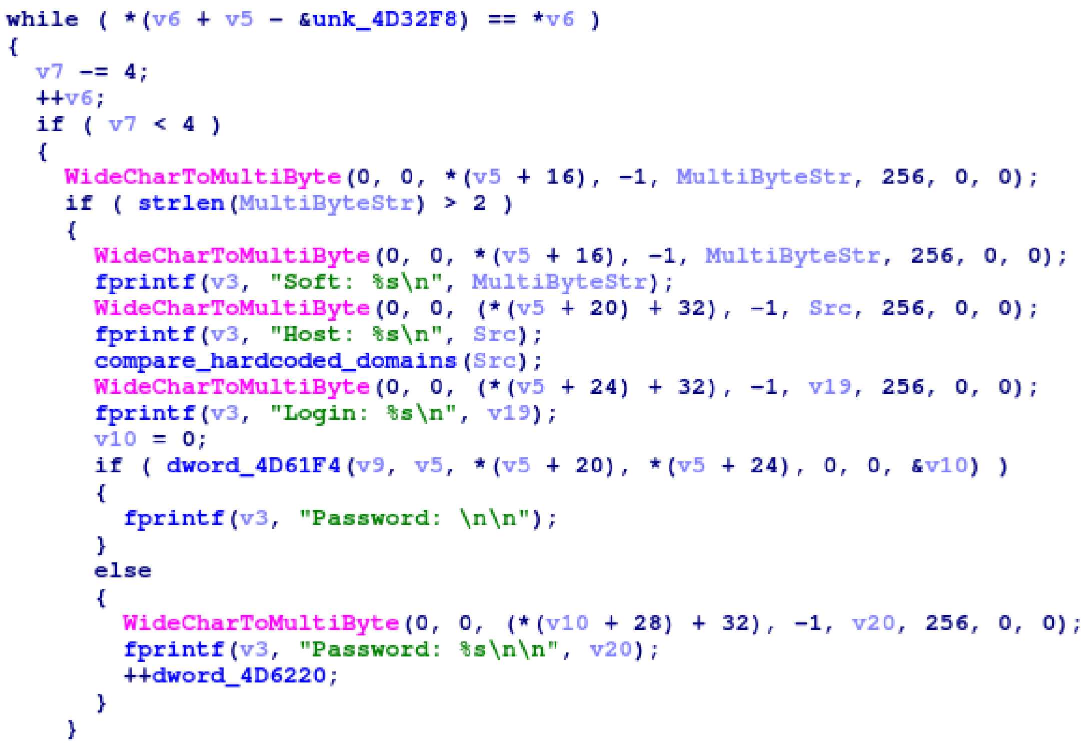
The encryption is pretty straightforward. Each blob is produced by xoring two static strings located in the `.rdata` section.



```
  dword_4D6030 = xor_decrypt(&unk_4BA5C8, "3F341XA6", 8u);// nato.int
  dword_4D60B4 = xor_decrypt(&unk_4BA5B0, "3TW6GXQHW", 9u);// ccdcoe.ee
  dword_4D5E08 = xor_decrypt(aR2y1G, "B1FQ6TQC5L", 0xAu);// ccdcoe.org
  dword_4D5F58 = xor_decrypt("%?E*!,<#V7'|?6#", "VK7KUOSN5XBRPDD", 0xFu);// stratcomcoe.org
  dword_4D601C = xor_decrypt("V$>2([:P{(5-", "3JMWK8U5UGGJ", 0xCu);// enseccoe.org
  dword_4D5D9C = xor_decrypt("*V4cUY;a:@", "Y7VM26MOV6", 0xAu);// sab.gov.lv
  dword_4D60FC = xor_decrypt("$*7<e2:#z!4", "ICSXKUUUTMB", 0xBu);// midd.gov.lv
  dword_4D5D44 = xor_decrypt(")3e#?#c.&", "MCKDPUMBP", 9u);// dp.gov.lv
  dword_4D5D18 = xor_decrypt("?6`![&d'<", "MENF4PJKJ", 9u);// rs.gov.lv
  dword_4D5FD4 = xor_decrypt(" 3t5X7e)!", "VCZR7AKEW", 9u);// vp.gov.lv
  dword_4D5DBC = xor_decrypt("5V/o0[>bY:", "X9KAW4HL5L", 0xAu);// mod.gov.lv
  dword_4D603C = xor_decrypt("*+>Mc+\"", "INL9MGT", 7u);// cert.lv
  dword_4D5F60 = xor_decrypt(&unk_4BA4A8, "EYM34L", 6u);// mil.lv
  dword_4D5ED8 = xor_decrypt(",#Nd!@", "KL8JM4", 6u);// gov.lt
  dword_4D609C = xor_decrypt("(\"_e[-", "EK3K7Y", 6u);// mil.lt
  dword_4D5E50 = xor_decrypt("46)|8C", "BEMRT7", 6u);// vsd.lt
  dword_4D5EC0 = xor_decrypt("%'UlZ>", "SU8B6J", 6u);// vrm.lt
  dword_4D60A8 = xor_decrypt("798`Z#", "DMLN6W", 6u);// stt.lt
  dword_4D5F74 = xor_decrypt("ZRC6o?<", "133YAZY", 7u);// kapo.ee
  dword_4D6088 = xor_decrypt("%[>Y5#&&e)'", "U4R0APCOKLB", 0xBu);// politsei.ee
  dword_4D6100 = xor_decrypt(") k($=`9<", "HWEOKKNIP", 9u);// aw.gov.pl
  dword_4D5CC8 = xor_decrypt("8%6}W!1z4Y", "YGAS0NGTD5", 0xAu);// abw.gov.pl
  dword_4D5D58 = xor_decrypt("=1*RC$0RY?PO\\#e7'", "NEX39CB37V352BKGK", 0x11u);// strazgraniczna.pl
  dword_4D5FC8 = xor_decrypt(&unk_4BA3C0, "SMTSK1K9N4", 0xAu);// bbn.gov.pl
  dword_4D5E9C = xor_decrypt(&unk_4BA3A8, "89XJTKO76T", 0xAu);// sww.gov.pl
  dword_4D5BDC = xor_decrypt("_)#g5>!xC#", "2FMIRQWV3O", 0xAu);// mon.gov.pl
  dword_4D5E28 = xor_decrypt("K\"\"j>(#`3\"", "8IUDYGUNCN", 0xAu);// skw.gov.pl
  dword_4D5C98 = xor_decrypt("-Q$<jC&", "N4VHD3J", 7u);// cert.pl
  dword_4D5D7C = xor_decrypt(" 2&'0+", "MKUNDN", 6u);// mysite
  result = xor_decrypt("6 9$&+P$", "WRMAKB4E", 8u);// artemida
  dword_4D5E10 = result;
  return result;
}
000020D5 sub_401090:318 (402CD5)
```

Xor string decryption

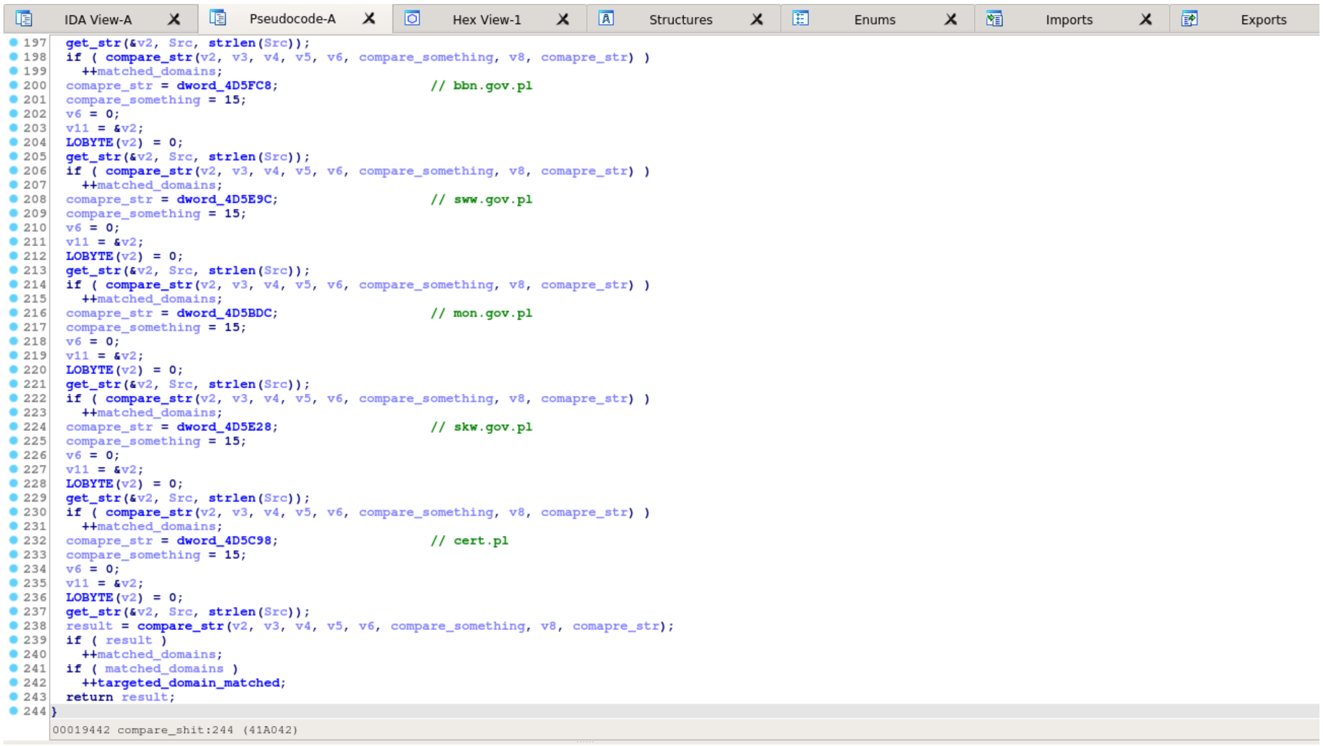
The decoded strings are then used in a subsequent section of the binary, where they are compared with hostnames of stolen credentials.



```
while ( *(v6 + v5 - &unk_4D32F8) == *v6 )
{
  v7 -= 4;
  ++v6;
  if ( v7 < 4 )
  {
    WideCharToMultiByte(0, 0, *(v5 + 16), -1, MultiByteStr, 256, 0, 0);
    if ( strlen(MultiByteStr) > 2 )
    {
      WideCharToMultiByte(0, 0, *(v5 + 16), -1, MultiByteStr, 256, 0, 0);
      fprintf(v3, "Soft: %s\n", MultiByteStr);
      WideCharToMultiByte(0, 0, (*(v5 + 20) + 32), -1, Src, 256, 0, 0);
      fprintf(v3, "Host: %s\n", Src);
      compare_hardcoded_domains(Src);
      WideCharToMultiByte(0, 0, (*(v5 + 24) + 32), -1, v19, 256, 0, 0);
      fprintf(v3, "Login: %s\n", v19);
      v10 = 0;
      if ( dword_4D61F4(v9, v5, *(v5 + 20), *(v5 + 24), 0, 0, &v10) )
      {
        fprintf(v3, "Password: \n\n");
      }
      else
      {
        WideCharToMultiByte(0, 0, (*(v10 + 28) + 32), -1, v20, 256, 0, 0);
        fprintf(v3, "Password: %s\n\n", v20);
        ++dword_4D6220;
      }
    }
```

Iteration over stolen credentials

If at least one domain is matched, a global flag is incremented.

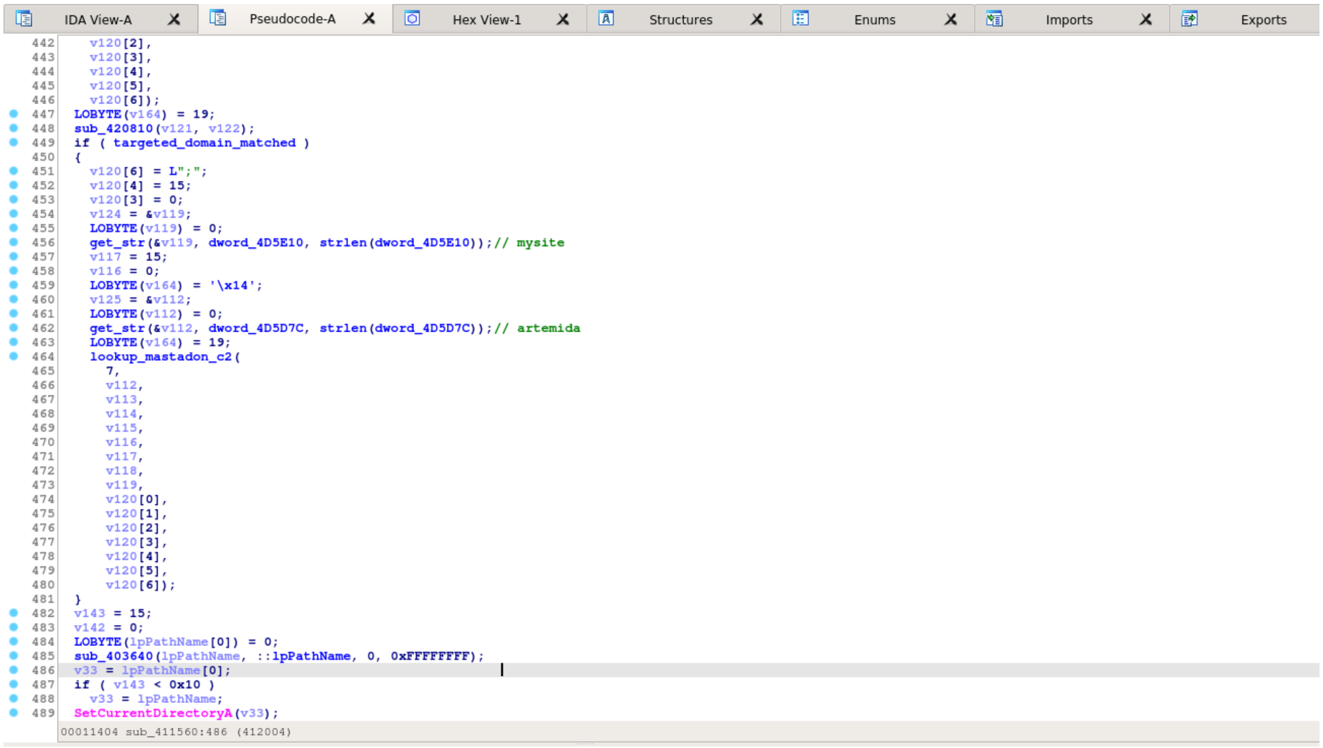


```
get_str(&v2, Src, strlen(Src));
if ( compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str) )
  ++matched_domains;
comapre_str = dword_4D5FC8;                       // bbn.gov.pl
compare_something = 15;
v6 = 0;
v11 = &v2;
LOBYTE(v2) = 0;
get_str(&v2, Src, strlen(Src));
if ( compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str) )
  ++matched_domains;
comapre_str = dword_4D5E9C;                       // sww.gov.pl
compare_something = 15;
v6 = 0;
v11 = &v2;
LOBYTE(v2) = 0;
get_str(&v2, Src, strlen(Src));
if ( compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str) )
  ++matched_domains;
comapre_str = dword_4D5BDC;                       // mon.gov.pl
compare_something = 15;
v6 = 0;
v11 = &v2;
LOBYTE(v2) = 0;
get_str(&v2, Src, strlen(Src));
if ( compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str) )
  ++matched_domains;
comapre_str = dword_4D5E28;                       // skw.gov.pl
compare_something = 15;
v6 = 0;
v11 = &v2;
LOBYTE(v2) = 0;
get_str(&v2, Src, strlen(Src));
if ( compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str) )
  ++matched_domains;
comapre_str = dword_4D5C98;                       // cert.pl
compare_something = 15;
v6 = 0;
v11 = &v2;
LOBYTE(v2) = 0;
get_str(&v2, Src, strlen(Src));
result = compare_str(v2, v3, v4, v5, v6, compare_something, v8, comapre_str);
if ( result )
  ++matched_domains;
if ( matched_domains )
  ++targeted_domain_matched;
return result;
}
```

```
00019442 compare_shit:244 (41A042)
```

Hostname needle search

What's unusual about these Vidar samples is the use of a second C&C server responsible for handling credentials used when the global flag is set.



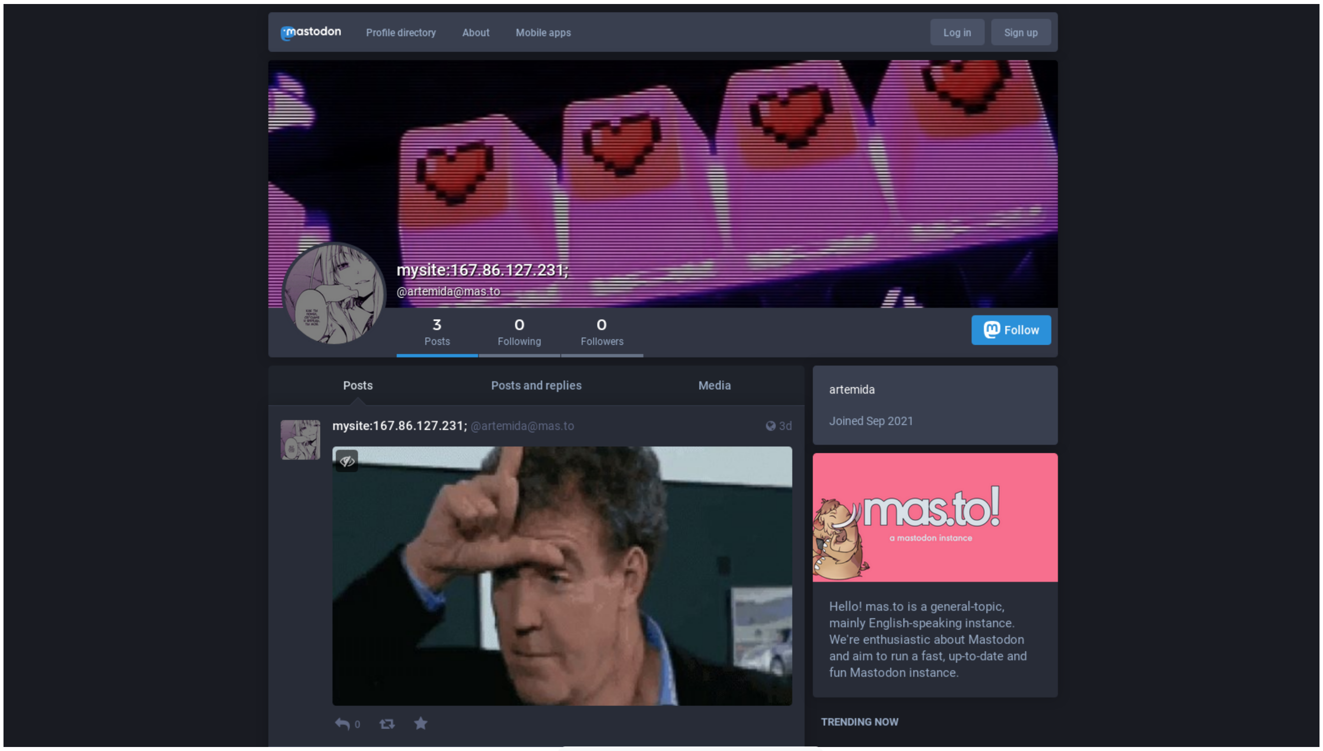
```
    v120[2],
    v120[3],
    v120[4],
    v120[5],
    v120[6]);
  LOBYTE(v164) = 19;
  sub_420810(v121, v122);
  if ( targeted_domain_matched )
  {
    v120[6] = L";";
    v120[4] = 15;
    v120[3] = 0;
    v124 = &v119;
    LOBYTE(v119) = 0;
    get_str(&v119, dword_4D5E10, strlen(dword_4D5E10));// mysite
    v117 = 15;
    v116 = 0;
    LOBYTE(v164) = '\x14';
    v125 = &v112;
    LOBYTE(v112) = 0;
    get_str(&v112, dword_4D5D7C, strlen(dword_4D5D7C));// artemida
    LOBYTE(v164) = 19;
    lookup_mastadon_c2(
      7,
      v112,
      v113,
      v114,
      v115,
      v116,
      v117,
      v118,
      v119,
      v120[0],
      v120[1],
      v120[2],
      v120[3],
      v120[4],
      v120[5],
      v120[6]);
  }
  v143 = 15;
  v142 = 0;
  LOBYTE(lpPathName[0]) = 0;
  sub_403640(lpPathName, ::lpPathName, 0, 0xFFFFFFFF);
  v33 = lpPathName[0];
  if ( v143 < 0x10 )
    v33 = lpPathName;
  SetCurrentDirectoryA(v33);
```

```
00011404 sub_411560:486 (412004)
```

Alternative C&C server lookup

For the Vidar version analyzed, the C&C address is not stored directly in the sample but fetched from a specific user profile on the `Mastodon` platform.

In this specific sample, the default profile is `@oleg98` , and for reporting credentials from hosts of interest, `@artemida` is used.



mysite:167.86.127.231;
@artemida@mas.to

3 Posts · 0 Following · 0 Followers

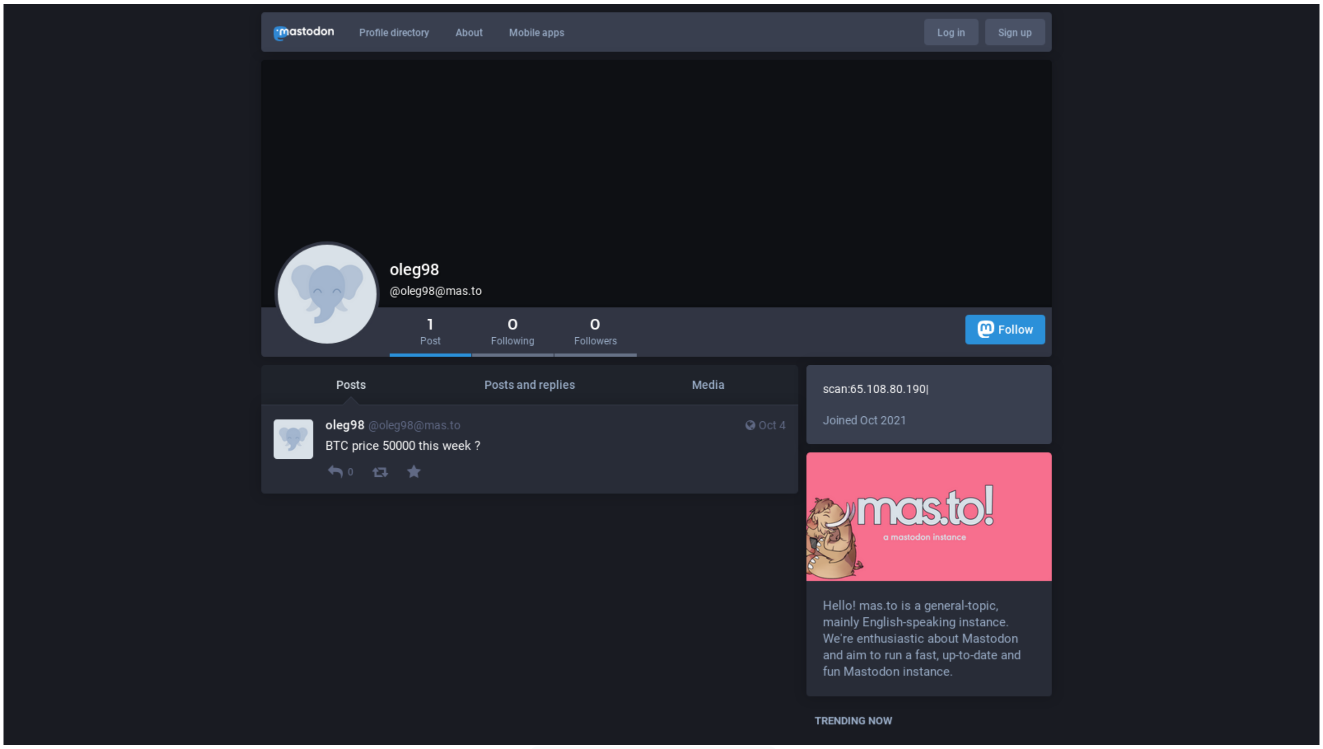
mysite:167.86.127.231; @artemida@mas.to · 3d

artemida
Joined Sep 2021

mas.to! a mastodon instance

Hello! mas.to is a general-topic, mainly English-speaking instance. We're enthusiastic about Mastodon and aim to run a fast, up-to-date and fun Mastodon instance.

Mastadon artemida profile - pointing to `167.86.127.231`



oleg98
@oleg98@mas.to

1 Post · 0 Following · 0 Followers

oleg98 @oleg98@mas.to · Oct 4
BTC price 50000 this week ?

scan:65.108.80.190|
Joined Oct 2021

mas.to! a mastodon instance

Hello! mas.to is a general-topic, mainly English-speaking instance. We're enthusiastic about Mastodon and aim to run a fast, up-to-date and fun Mastodon instance.

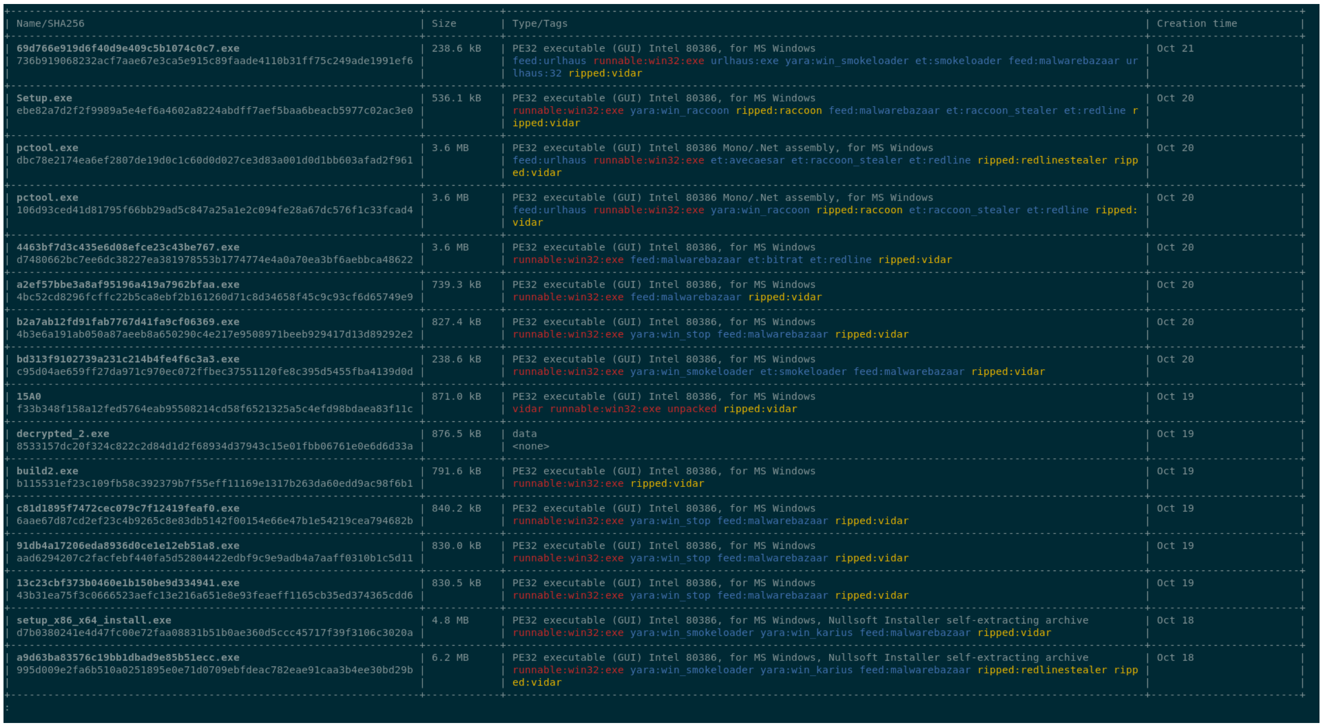
Mastadon oleg98 profile - pointing to `65.108.80.190`

Campaign background

Unfortunately, we don't have much information on how the campaign was delivered and which entities were targeted directly. What is interesting, though, is that the actor used several other malware families.

Let's take a look at source samples in MWDB. We'll use mwdblib to quickly find the files that were extracted into the config in question.

```
mwdb search files 'child:(child:
(config.dhash:abed3750173760a9bcc5f6d78ccdd3557ce27135c8c5e6e593a9a7387e738c4e))'
```



```
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| Name/SHA256                                                      | Size       | Type/Tags                                                                                             | Creation time        |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| 69d766e919d6f40d9e409c5b1074c0c7.exe                             | 238.6 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 21               |
| 736b919068232acf7aae67e3ca5e915c89faade4110b31ff75c249ade1991ef6 |            | feed:urlhaus runnable:win32:exe urlhaus:exe yara:win_smokeloader et:smokeloader feed:malwarebazaar ur |                      |
|                                                                  |            | lhaus:32 ripped:vidar                                                                                 |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| Setup.exe                                                        | 536.1 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 20               |
| ebe82a7d2f2f9989a5e4ef6a4602a8224abdff7aef5baa6beacb5977c02ac3e0 |            | runnable:win32:exe yara:win_raccoon ripped:raccoon feed:malwarebazaar et:raccoon_stealer et:redline r |                      |
|                                                                  |            | ipped:vidar                                                                                           |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| pctool.exe                                                       | 3.6 MB     | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows                                  | Oct 20               |
| dbc78e2174ea6ef2807de19d0c1c60d0d027ce3d83a001d0d1bb603afad2f961 |            | feed:urlhaus runnable:win32:exe et:avecaesar et:raccoon_stealer et:redline ripped:redlinestealer ripp |                      |
|                                                                  |            | ed:vidar                                                                                              |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| pctool.exe                                                       | 3.6 MB     | PE32 executable (GUI) Intel 80386 Mono/.Net assembly, for MS Windows                                  | Oct 20               |
| 106d93ced41d81795f66bb29ad5c847a25a1e2c094fe28a67dc576f1c33fcad4 |            | feed:urlhaus runnable:win32:exe yara:win_raccoon ripped:raccoon et:raccoon_stealer et:redline ripped: |                      |
|                                                                  |            | vidar                                                                                                 |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| 4463bf7d3c435e6d08efce23c43be767.exe                             | 3.6 MB     | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 20               |
| d7480662bc7ee6dc38227ea381978553b1774774e4a0a70ea3bf6aebbca48622 |            | runnable:win32:exe feed:malwarebazaar et:bitrat et:redline ripped:vidar                               |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| a2ef57bbe3a8af95196a419a7962bfaa.exe                             | 739.3 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 20               |
| 4bc52cd8296fcffc22b5ca8ebf2b161260d71c8d34658f45c9c93cf6d65749e9 |            | runnable:win32:exe feed:malwarebazaar ripped:vidar                                                    |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| b2a7ab12fd91fab7767d41fa9cf06369.exe                             | 827.4 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 20               |
| 4b3e6a191ab050a87aeeb8a650290c4e217e9508971beeb929417d13d89292e2 |            | runnable:win32:exe yara:win_stop feed:malwarebazaar ripped:vidar                                      |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| bd313f9102739a231c214b4fe4f6c3a3.exe                             | 238.6 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 20               |
| c95d04ae659ff27da971c970ec072ffbec37551120fe8c395d5455fba4139d0d |            | runnable:win32:exe yara:win_smokeloader et:smokeloader feed:malwarebazaar ripped:vidar                |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| 15A0                                                             | 871.0 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 19               |
| f33b348f158a12fed5764eab95508214cd58f6521325a5c4efd98bdaea83f11c |            | vidar runnable:win32:exe unpacked ripped:vidar                                                        |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| decrypted_2.exe                                                  | 876.5 kB   | data                                                                                                  | Oct 19               |
| 8533157dc20f324c822c2d84d1d2f68934d37943c15e01fbb06761e0e6d6d33a |            | <none>                                                                                                |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| build2.exe                                                       | 791.6 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 19               |
| b115531ef23c109fb58c392379b7f55eff11169e1317b263da60edd9ac98f6b1 |            | runnable:win32:exe ripped:vidar                                                                       |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| c81d1895f7472cec079c7f12419feaf0.exe                             | 840.2 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 19               |
| 6aae67d87cd2ef23c4b9265c8e83db5142f00154e66e47b1e54219cea794682b |            | runnable:win32:exe yara:win_stop feed:malwarebazaar ripped:vidar                                      |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| 91db4a17206eda8936d0ce1e12eb51a8.exe                             | 830.0 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 19               |
| aad6294207c2facfebf440fa5d52804422edbf9c9e9adb4a7aaff0310b1c5d11 |            | runnable:win32:exe yara:win_stop feed:malwarebazaar ripped:vidar                                      |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| 13c23cbf373b0460e1b150be9d334941.exe                             | 830.5 kB   | PE32 executable (GUI) Intel 80386, for MS Windows                                                     | Oct 19               |
| 43b31ea75f3c0666523aefc13e216a651e8e93feaeff1165cb35ed374365cdd6 |            | runnable:win32:exe yara:win_stop feed:malwarebazaar ripped:vidar                                      |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| setup_x86_x64_install.exe                                        | 4.8 MB     | PE32 executable (GUI) Intel 80386, for MS Windows, Nullsoft Installer self-extracting archive         | Oct 18               |
| d7b0380241e4d47fc00e72faa08831b51b0ae360d5ccc45717f39f3106c3020a |            | runnable:win32:exe yara:win_smokeloader yara:win_karius feed:malwarebazaar ripped:vidar               |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
| a9d63ba83576c19bb1dbad9e85b51ecc.exe                             | 6.2 MB     | PE32 executable (GUI) Intel 80386, for MS Windows, Nullsoft Installer self-extracting archive         | Oct 18               |
| 995d009e2fa6b510a0251895e0e71d0709ebfdeac782eae91caa3b4ee30bd29b |            | runnable:win32:exe yara:win_smokeloader yara:win_karius feed:malwarebazaar ripped:redlinestealer ripp |                      |
|                                                                  |            | ed:vidar                                                                                              |                      |
+------------------------------------------------------------------+------------+-------------------------------------------------------------------------------------------------------+----------------------+
:
```

All matched samples and accompanying tags:

```
'77737d30b68a8fa75847570bfaa2c718875c532de61d7a5643504a1ac892a330',
['feed:malwarebazaar', 'ripped:raccoon', 'ripped:vidar', 'runnable:win32:exe',
'yara:win_karius', 'yara:win_raccoon', 'yara:win_smokeloader']
'9405f9084c8ec3eff442b83c20928fceb3e6372d504381b0527a7512a9889231',
['feed:malwarebazaar', 'feed:urlhaus', 'ripped:vidar', 'runnable:win32:exe',
'urlhaus:arkeistealer', 'urlhaus:exe']
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'ebe82a7d2f2f9989a5e4ef6a4602a8224abdff7aef5baa6beacb5977c02ac3e0',
['et:raccoon_stealer', 'et:redline', 'feed:malwarebazaar', 'ripped:raccoon',
'ripped:vidar', 'runnable:win32:exe', 'yara:win_raccoon']
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'ripped:vidar', 'runnable:win32:exe']
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'yara:win_karius', 'yara:win_smokeloader']
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'runnable:win32:exe', 'yara:win_raccoon', 'yara:win_smokeloader', 'yara:win_stop']
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['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
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['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
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['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
'518e682b4f0226db5e1abb7b62a32a2f46db719b6c407317273cbef56c811657', ['feed:urlhaus',
'ripped:vidar', 'runnable:win32:exe', 'urlhaus:arkeistealer', 'urlhaus:exe']
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['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
'd9b6823ca8e13b78c269c5d21e948dbab625ea87d3370d163eeabeb3822aef56',
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'8a2abfa467352b278a1233aead9dffbb23a6d17bd50fe22e275ca92a1911c23c', ['feed:urlhaus',
'ripped:vidar', 'runnable:win32:exe', 'urlhaus:arkeistealer', 'urlhaus:exe']
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['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
'2692f4594cebfa3afca882274dc1432fea1ccbc7d3f37db3e15059722db1d97b',
['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
'9cffbade290f88c34b8a5e2e551fd9ae035eeda9d49d0eb0fecec8e40ecf2e84',
['feed:malwarebazaar', 'ripped:vidar', 'runnable:win32:exe']
```

We can see that besides Vidar, MWDB was also able to detect and extract configurations from the following malware families:

- Raccoon
- RedLine Stealer
- SmokeLoader
- STOP ransomware

All of the recognized samples were uploaded as a part of the URLhaus[2], and MalwareBazaar[3] feeds, both developed by abuse.ch.

Indicators of Compromise

C&C profile proxies

- hxxps://mas.to/@sslam
- hxxps://mas.to/@serg4325
- hxxps://mas.to/@xeroxxx
- hxxps://mas.to/@oleg98

- hxxps://mas.to/@artemida

C&C servers

- 65.108.80[.]190
- 167.86.127[.]231

Samples

```
16c3f8999141beee55afdb49670b9e44b4916816faeb643639a7ace81c13806a
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```

References