Brazilian Research and Academic Network - RNP
Security Incidents Response Center - CAIS

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Malware propagation through software piracy

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Introduction:

- Software piracy is being used as a vector to propagate malicious code
- Software piracy has many faces
- Infected machines generates profit to miscreants…

Information collected:

- Popular software were searched for cracks, serial numbers, keygens (serial number generators) and unauthorized distributions.
- Search using P2P networks, IRC and simple web surfing.
- 4.405 files of cracks, keygens and serials were collected in total of +3.8gigs of files

Information collected:

- 322 related to Windows XP WGA
  17 related to IE7 and WMP11
  172 related to Windows Vista Activation
  61 related to DVD burning
  85 related to antivirus software
  6 related to anti spyware

Information collected: (after unpacking)

- 2115 .exe files
  1634 .zip files
  1279 .rar files
  2075 .txt files
  585 .dll files

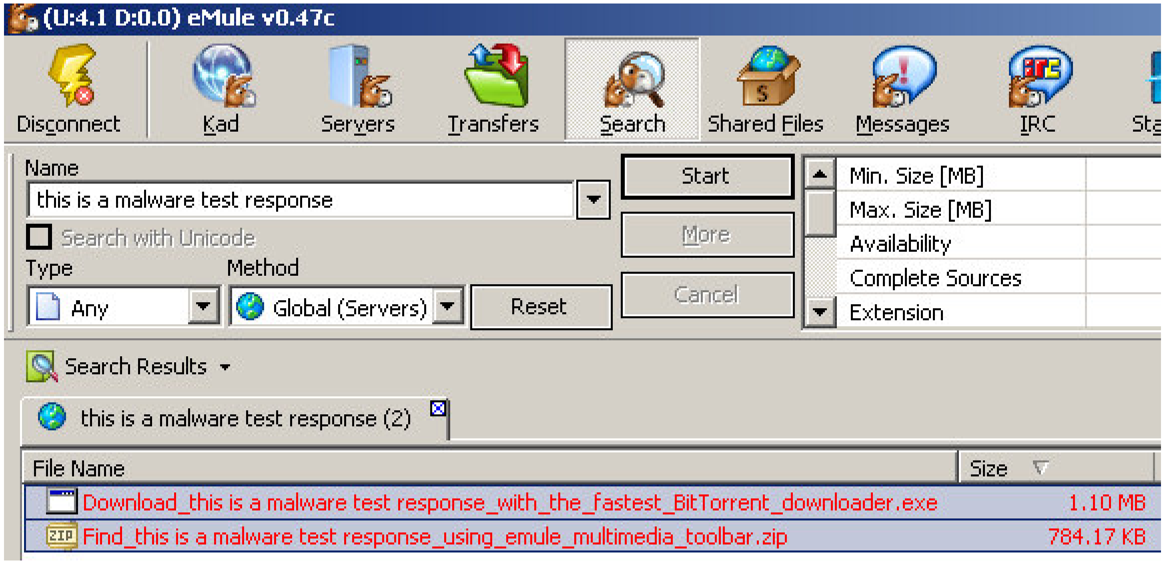
- 97 password-protected files (need to register or pay to unpack)

Information collected (common names):

"Generate Genuine Serial For WinXP.exe"
"Change WinXP Key.exe"
"WinXP Genuine Advantage Fix.exe"
"WGAFixer v3.3 (1.5.540.0)-Taag.exe"
"WGA Notification Removal.exe"
"Install_MSN_Messenger_DL.exe"
"Windows XP SP2 Keygen + Key Changer + WGA Validation.rar"
"Windows Xp Wga Windows Genuine Advantage Validation Crack 1.5.532.0 Legitcheckcontrol Dll Wgalogon Dll Wgatray Exe.zip"
"WGA Patcher Permanent Kit-1-1-2007.rar"
"Wga Microsoft Windows Genuine Advantage Crack Fix Full 1Click 2007.zip"

Search responses:

- You can search for the craziest crack and serial and you will find it: try search for “this is a malware test response”



(U:4.1 D:0.0) eMule v0.47c

Name: this is a malware test response

□ Search with Unicode

Type: Any

Method: Global (Servers)

Min. Size [MB]
Max. Size [MB]
Availability
Complete Sources
Extension

this is a malware test response (2)

File Name	Size
Download_this is a malware test response_with_the_fastest_BitTorrent_downloader.exe	1.10 MB
Find_this is a malware test response_using_emule_multimedia_toolbar.zip	784.17 KB

The Spongebob effect:

- Why not?
  spongebob operating system 4.8 crack serial

➡ We should consider that malicious code can be built on demand based on user activity or search query

Piracy:

- Why do people go for software piracy?
  - **Price?** How many Big Macs you need to buy a Windows Vista Business?
  -

Brazil	$BM 123 for a Vista
EUA	$BM 93 for a Vista
Germany	$BM 53 for a Vista (thanks Peter Quick)
China	$BM 157 for a Vista (thanks CERT/CN)
Malaysia	$BM 176 for a Vista (thanks MyCERT)

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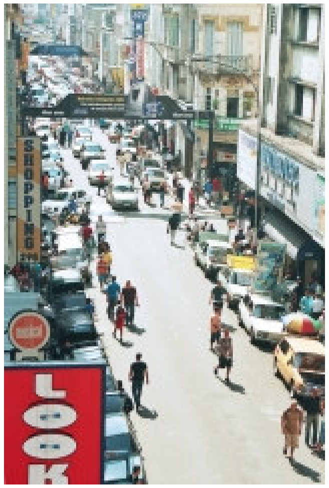
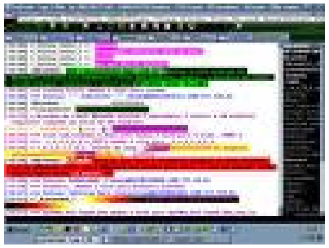
  - The latest ultimate version?
    - Consumers are getting crazy for new versions and products. People are hacking into development companies to steal delayed products (Condition Zero, game).
      They also download fake servicepack files just because their version is newer (servicepack 3 for Windows XP).

Source of evil:

- P2P networks
- Search engines
- IRC cracking channels
- Street CDs
- Friends

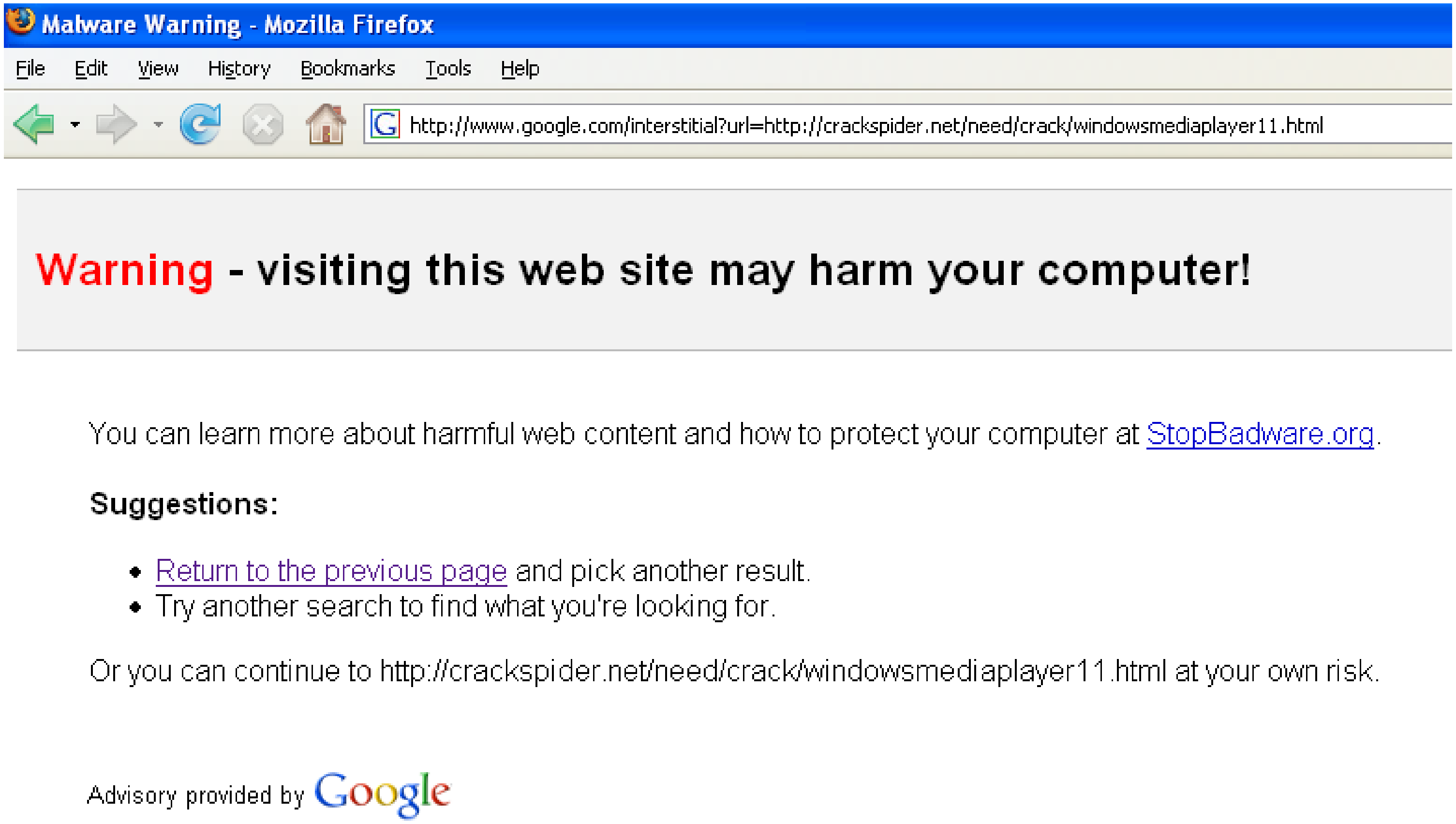


santa ifigênia street, sp, br



Source of evil:

- Search engines are fighting this issue


Malware Warning - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://www.google.com/interstitial?url=http://crackspider.net/need/crack/windowsmediaplayer11.html

Warning - visiting this web site may harm your computer!

You can learn more about harmful web content and how to protect your computer at StopBadware.org.

Suggestions:

- Return to the previous page and pick another result.
- Try another search to find what you're looking for.

Or you can continue to http://crackspider.net/need/crack/windowsmediaplayer11.html at your own risk.

Advisory provided by Google

Malware information:

- From the 4.405 files collected 2.858 were executables.
  The 4.405 files generated 47.530 files after recursive unpacking.

- From the 2.858 executables 1.801 were classified as malicious: **63%**
  Infection rate from all downloaded files: **40%**

Malware information:

- 65% of malware collected was classified as downloaders (additional malicious code will be download upon execution)
- 35% of malware collected were bot infection files
- 20% of all files have any kind of spyware/adware functionalities (browser hijacking, etc)

Malware information: antivirus results

- 46 types of malware

  Adware.Advertmen-1
  AdWare.BHO-2
  Adware.Casino
  Dialer-182
  Trojan.Clicker
  Trojan.Downloader
  Trojan.Dragonbot ← this is bad
  Trojan.Dropper
  Trojan.Keylogger ← this is very bad
  Trojan.Packed
  Trojan.Proxy ← this is bad
  Trojan.Spambot ← this is bad
  Worm.Bagle
  Worm.Drefir
  Worm.P2P.KWBot
  Worm.Puce

all this make money to miscreants

Malware packer information:

- 61 types of packers (from .exe files)
  - 39% UPX all versions
  - 13% Winrar
  - 11% FSG
  - 10% PE_Compact
  - 5% ASPack

Infection rate over 1801 executables: 63%

Infection rate over PE_Compact and ASPack: 95%

- Worst case scenario:
  - People with pirated operating system and no patches (they need to validate) looking for a pirate version of a commercial antivirus to use in order to be protected!
  - High percentage of files related to software piracy are malicious (there is no safe ground).
  - Antivirus efficiency needs to be improved.
  - Packers should be banned?

- Questions?

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