#### EXHIBIT 1



Symantec Security Response

http://www.symantec.com/security\_response/index.jsp

## W32.Ramnit

**Risk Level 1: Very Low** 

Systems Affected: Windows 2000, Windows 7, Windows 95, Windows 98, Windows Me, Windows Server 2003, Windows Server 2008, Windows Vista, Windows XP January 20, 2010 12:08:42 AM January 19, 2010 10,240 bytes Infection Length: Discovered: Virus Updated: Type:

#### SUMMARY

W32.Ramnit is a worm that spreads through removable drives and by infecting executable files.

## Antivirus Protection Dates

- Initial Rapid Release version January 19, 2010 revision 040
- Latest Rapid Release version December 11, 2014 revision 008

  - Initial Daily Certified version January 19, 2010 revision 051
    Latest Daily Certified version December 12, 2014 revision 004
    Initial Weekly Certified release date January 20, 2010

Click here for a more detailed description of Rapid Release and Daily Certified virus definitions.

## Threat Assessment

Wild

- Wild Level: Low
- Number of Infections: 0 49
- Number of Sites: 0 2
- Geographical Distribution: Low
  Threat Containment: Easy

Removal: Easy

#### Damage

- Damage Level: Low
- Payload: Spreads by infecting executable files and through removable drives.
  Modifies Files: Infects executable files.

#### Distribution

- Distribution Level: Low
  Target of Infection: Executable files and removable drives.

## **TECHNICAL DETAILS**

Once executed, the worm creates the following folder: %ProgramFiles%\MNetwork It then creates the following mutex so only one instance of the worm is running: Ghiyhjmnklowqq The worm spreads by encrypting and then appending itself to files with the following extensions:

- DLL
- EXE HTM

When an infected file, detected as <u>W32.Ramnitlinf</u>, is executed, it drops a copy of the worm executable file with the following file name and executes it: %CurrentFolder%\[INFECTED FILE NAME]Srv.exe The worm also spreads by copying itself to the recycle bin on the removable drive and creates the following file so that it executes whenever the drive is accessed: %DriveLetter%autorun.inf

The worm attempts to connect to the following remote location: rmnzerobased.com

It attempts to download a .dll file and register it.

Note: At the time of writing, the file was unavailable.

## Recommendations

Symantec Security Response encourages all users and administrators to adhere to the following basic security "best practices":

- Use a firewall to block all incoming connections from the Internet to services that should not be publicly available. By default, you should deny all incoming
- connections and only allow services you explicitly want to offer to the outside world. Enforce a password policy. Complex passwords make it difficult to crack password files on compromised computers. This helps to prevent or limit damage when

a computer is compromised.

- Ensure that programs and users of the computer use the lowest level of privileges necessary to complete a task. When prompted for a root or UAC password, ensure that the program asking for administration-level access is a legitimate application.
- Disable AutoPlay to prevent the automatic launching of executable files on network and removable drives, and disconnect the drives when not required. If write access is not required, enable read-only mode if the option is available.
- Turn off file sharing if not needed. If file sharing is required, use ACLs and password protection to limit access. Disable anonymous access to shared folders. Grant access only to user accounts with strong passwords to folders that must be shared
  - Turn off and remove unnecessary services. By default, many operating systems install auxiliary services that are not critical. These services are avenues of attack. If they are removed, threats have less avenues of attack
    - If a threat exploits one or more network services, disable, or block access to, those services until a patch is applied.
- Always keep your patch levels up-to-date, especially on computers that host public services and are accessible through the firewall, such as HTTP, FTP, mail, and DNS services.
- Configure your email server to block or remove email that contains file attachments that are commonly used to spread threats, such as .vbs, .bat, .exe, .pif and scr files.
- Train employees not to open attachments unless they are expecting them. Also, do not execute software that is downloaded from the Internet unless it has been Isolate compromised computers quickly to prevent threats from spreading further. Perform a forensic analysis and restore the computers using trusted media.
  - If Bluetooth is not required for mobile devices, it should be turned off. If you require its use, ensure that the device's visibility is set to "Hidden" so that it cannot scanned for viruses. Simply visiting a compromised Web site can cause infection if certain browser vulnerabilities are not patched.
    - be scanned by other Bluetooth devices. If device pairing must be used, ensure that all devices are set to "Unauthorized", requiring authorization for each connection request. Do not accept applications that are unsigned or sent from unknown sources.
      - For further information on the terms used in this document, please refer to the Security Response glossany.

#### REMOVAL

You may have arrived at this page either because you have been alerted by your Symantec product about this risk, or you are concerned that your computer has been affected by this risk

Before proceeding further we recommend that you run a full system scan. If that does not resolve the problem you can try one of the options available below.

### FOR NORTON USERS

If you are a Norton product user, we recommend you try the following resources to remove this risk.

#### Removal Tool

- Run Norton Power Eraser (NPE)
- Norton Power Eraser did not remove this risk

If you have an infected Windows system file, you may need to replace them using from the Windows installation CD.

# How to reduce the risk of infection

The following resources provide further information and best practices to help reduce the risk of infection.

- Operating system updates to fix vulnerabilities
- File sharing protection
- Disable Autorun (CD/USB)

- Best practices for instant messaging Best practices for browsing the Web Best practices for email .
  - .

## FOR BUSINESS USERS

If you are a Symantec business product user, we recommend you try the following resources to remove this risk.

# Identifying and submitting suspect files

Submitting suspicious files to Symantec allows us to ensure that our protection capabilities keep up with the ever-changing threat landscape. Submitted files are analyzed by Symantec Security Response and, where necessary, updated definitions are immediately distributed through LiveUpdate<sup>TM</sup> to all Symantec end points. This ensures that other computers nearby are protected from attack. The following resources may help in identifying suspicious files for submission to Symantec.

- Locate a sample of a threat
- Submit a suspicious file to Symantec

#### Removal Tool

- Run Symantec Power Eraser in Symantec Help (SymHelp)
  - About Symantec Power Eraser
    Symantec Power Eraser User Guide

If you have an infected Windows system file, you may need to replace them using from the Windows installation CD.

# How to reduce the risk of infection

The following resource provides further information and best practices to help reduce the risk of infection. Protecting your business network

## MANUAL REMOVAL

The following instructions pertain to all current Symantec antivirus products.

## How to run a full system scan using your Symantec product 1. Performing a full system scan

# 2. Restoring settings in the registry

Many risks make modifications to the registry, which could impact the functionality or performance of the compromised computer. While many of these modifications can be restored through various Windows components, it may be necessary to edit the registry. See in the Technical Details of this writeup for information about which registry keys were created or modified. Delete registry subkeys and entries created by the risk and return all modified registry entries to their previous values.