

# The State of Spam

## A Monthly Report – January 2007

*Generated by Symantec Messaging and Web Security*

Confidence in a connected world.



## Monthly Spam Landscape

Spam activity in December of 2006 was consistent with trends observed in previous months, though some new wrinkles appeared. Highlights:

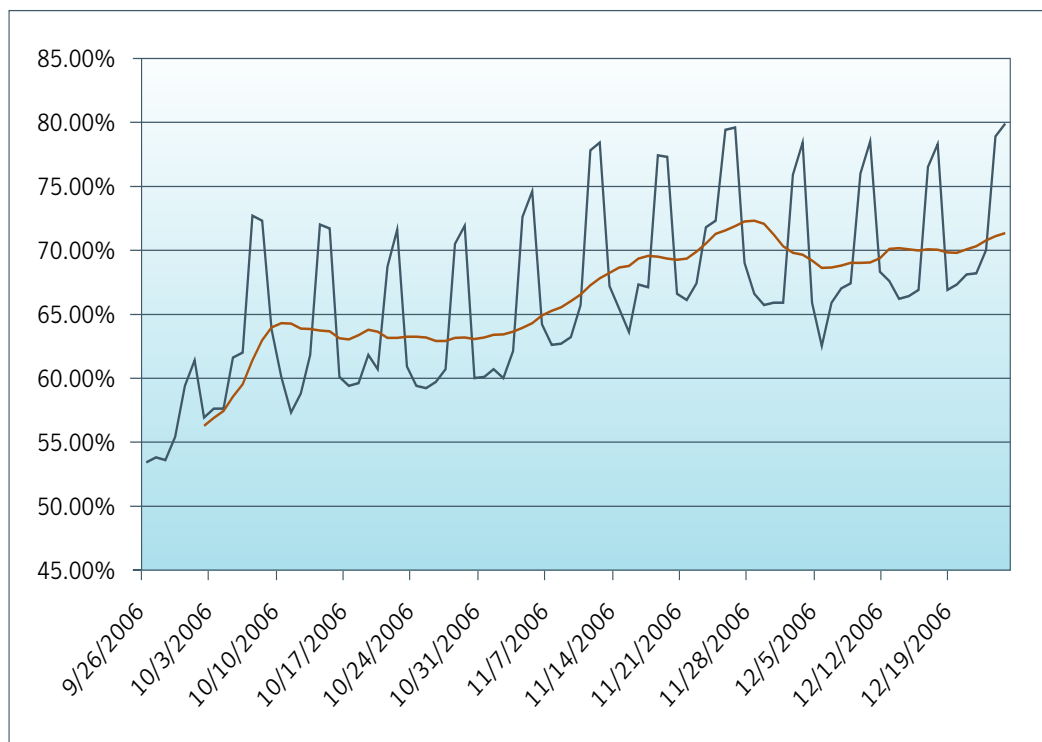
- Image spam continued to be prevalent, accounting for an average of 35% of all spam on the internet
- Spam continued to account for a high percentage of all e-mail traffic, peaking at 80% of messages sent in December
- Captcha techniques (which aim to prevent computer programs from using interfaces intended for human users) were being used in image spam in an attempt to defeat OCR (Optical Character Recognition) technology
- There was a rise in attacks which attempt to piggy back on legitimate e-mail newsletters

## Percentages of E-mail Identified as Spam

### Defined:

Worldwide Internet Mail Gateway Spam Percentage represents the number of messages that were processed and classified as spam versus the total number of messages processed when scanned at the mail gateway. This metric represents SMTP layer filtering and does not include the volumes of e-mail detected at the network layer.

### Internet E-mail Spam Percentage



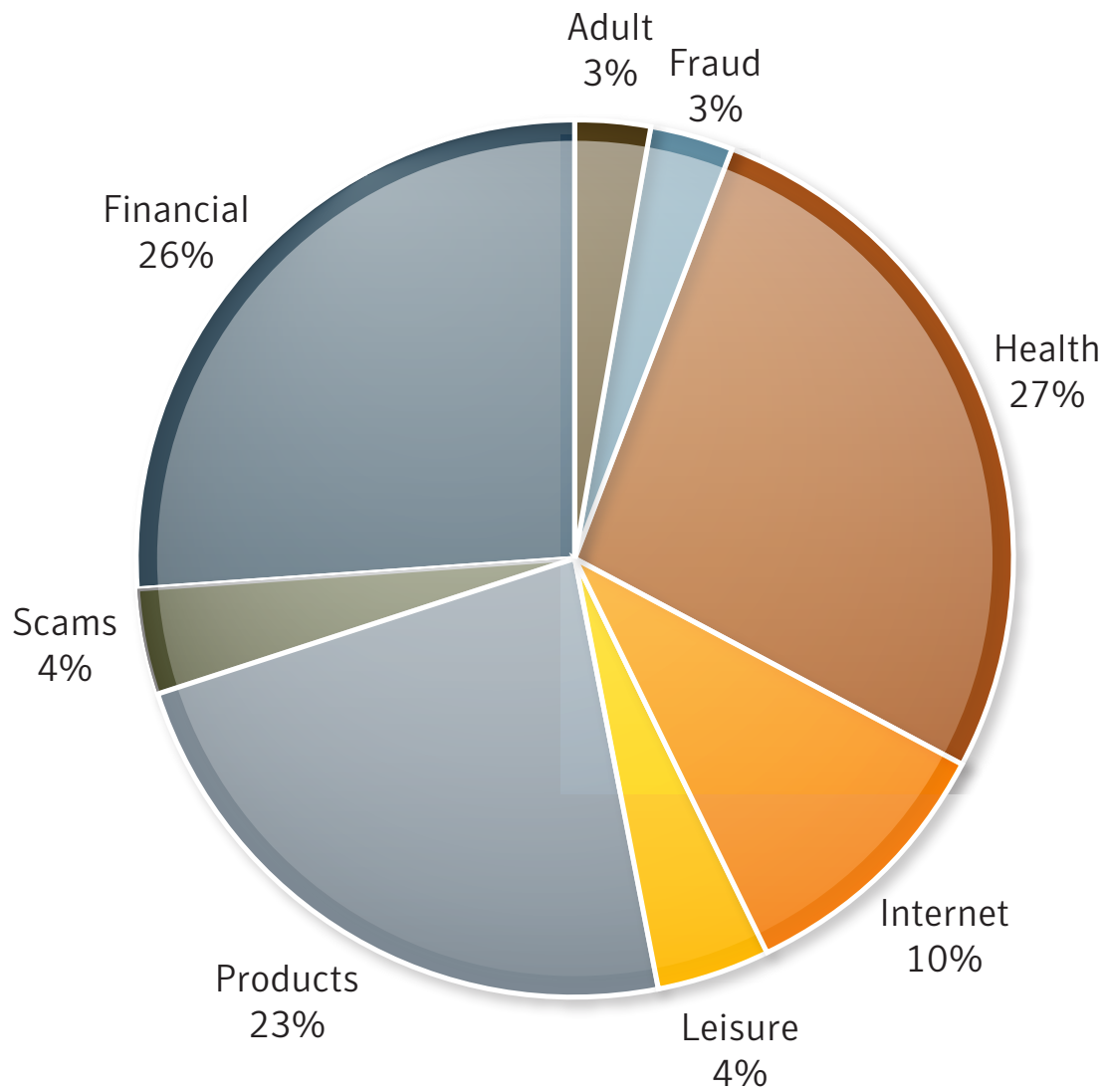
A trend line has been added to demonstrate a 7-day moving average.

**NOTE:** Numbers above represents SMTP layer filtering and does not include the volumes of e-mail detected at the network layer.

## Global Spam Categories

**Defined:**

Spam category data is collected from classifications on messages passing through the Symantec Probe Network.



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### Category Definitions:

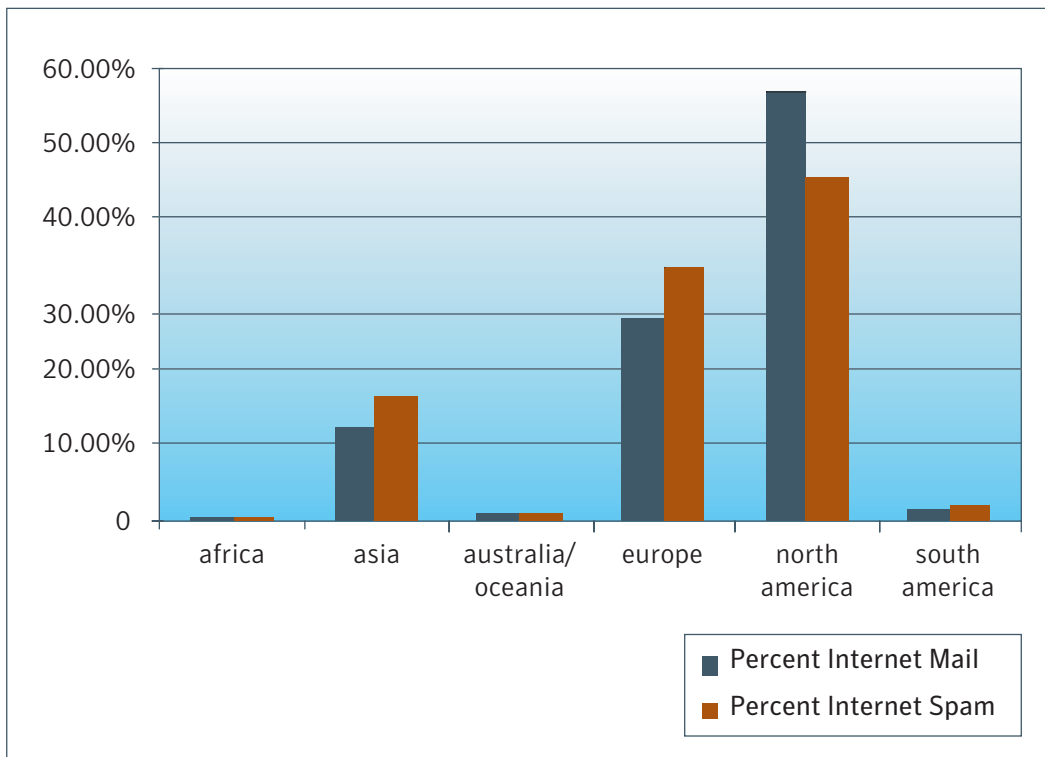
- **Products E-mail attacks** offering or advertising general goods and services.  
Examples: devices, investigation services, clothing, makeup
- **Adult E-mail attacks** containing or referring to products or services intended for persons above the age of 18, often offensive or inappropriate. Examples: porn, personal ads, relationship advice
- **Financial E-mail attacks** that contain references or offers related to money, the stock market or other financial “opportunities.” Examples: investments, credit reports, real estate, loans
- **Scams E-mail attacks** recognized as fraudulent, intentionally misleading, or known to result in fraudulent activity on the part of the sender. Examples: Nigerian investment, pyramid schemes, chain letters
- **Health E-mail attacks** offering or advertising health-related products and services.  
Examples: pharmaceuticals, medical treatments, herbal remedies
- **Fraud E-mail attacks** that appear to be from a well-known company, but are not. Also known as “brand spoofing” or “phishing,” these messages are often used to trick users into revealing personal information such as e-mail address, financial information and passwords. Examples: account notification, credit card verification, billing updates
- **Leisure E-mail attacks** offering or advertising prizes, awards, or discounted leisure activities. Examples: vacation offers, online casinos, games
- **Internet E-mail attacks** specifically offering or advertising Internet or computer-related goods and services. Examples: web hosting, web design, spamware
- **Political Messages** advertising a political candidate’s campaign, offers to donate money to a political party or political cause, offers for products related to a political figure/campaign, etc. Examples: political party, elections, donations
- **Spiritual E-mail attacks** with information pertaining to religious or spiritual evangelization and/or services. Examples: psychics, astrology, organized religion, outreach
- **Other** E-mails attacks not pertaining to any other category.

## Regions of Origin

**Defined:**

Region of origin represents the percentage of messages reported coming from each of the following regions: North America, South America, Europe, Australia/Oceania, Asia and Africa.

**Global Claimed Region of Origin (90 Days)**

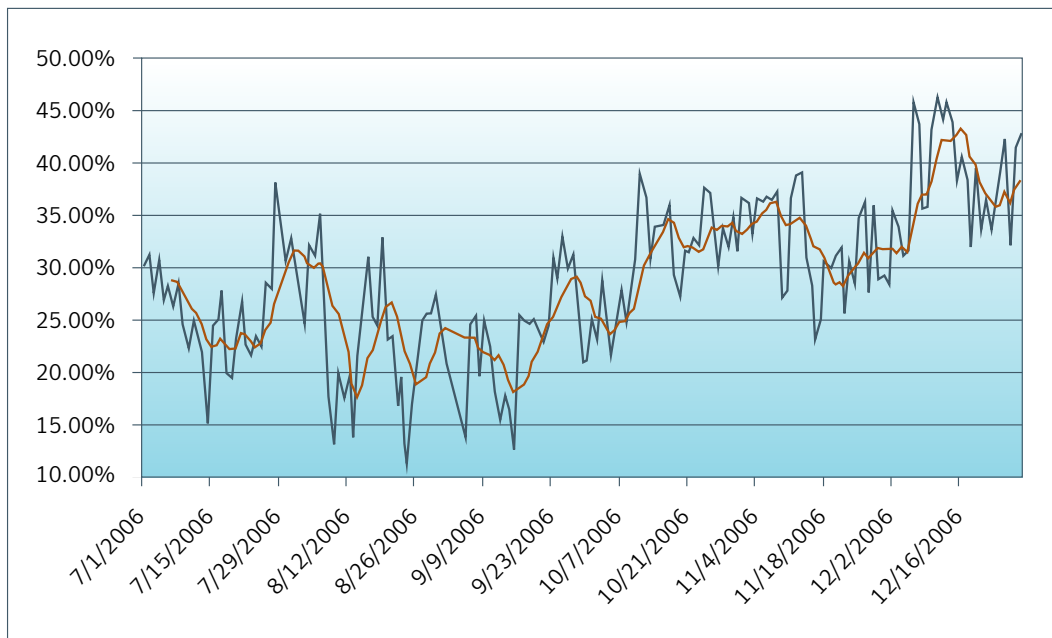


## Percentages of Image Spam

**Defined:**

The total number of image spam messages observed as a percentage of all spam observed.

### Internet E-mail - Percent Image Spam

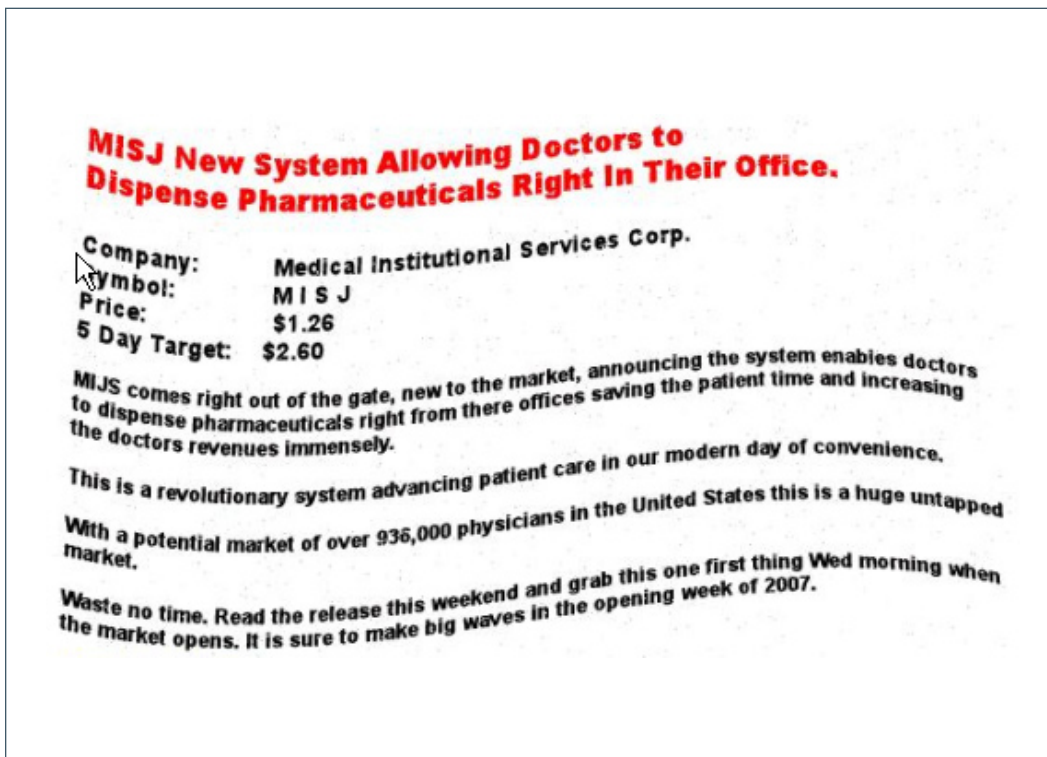


A trend line has been added to demonstrate a 7-day moving average.

## New Spam Techniques

### “Captcha” Image Spam

Captcha (Completely Automated Public Turing Test to Tell Computers and Humans Apart) is an approach that aims to determine if a user is human or not. It is used widely on Web sites to prevent unwanted access by automated programs. Users who have been asked to enter letters and numbers which correspond to a graphic showing a wavy string of characters have used a Captcha. Spammers are experimenting with utilizing Captcha technology to evade spam detection by systems that are heavily reliant upon OCR (Optical Character Recognition) technology. The technology creates randomized text with distorted characters that can be identified by humans, but are intended to not be recognizable by computers. An example of such a message appears below:



## Newsletter and Advertisement “Injection”

This technique is an attempt to mask spam images in existing templates of newsletters and legitimate advertisements. The technique is designed to evade signature detection as the majority of the data in the message is legitimate data. It also challenges anti-spam filters to avoid false positives when analyzing content that is nearly identical to legitimate bulk e-mail.

An example of such a message appears below:

The image shows a screenshot of an email advertisement. At the top, it says "CHEAPEST PRICES" and "We are the only store wich gives this great deal you!". Below this is a grid of medicine images, each in a blue-bordered box. The medicines shown are: VIAGRA (Pfizer), VIAGRA SOFT, CIALIS (C20), CIALIS SOFT, XANAX, SOMA, AMBIEN (AMB 5), TRAMADOL, VALIUM (10 mg), and MERIDIA. Below the grid, it says "The USA Licensed Online Pharmacy" and "Save huge 70 % on all the orders with us!". At the bottom, there is a preview of "THE NFL FANTASY REPORT" newsletter, which includes the NFL logo, the text "Hey NFL Fan," and a list of "TOP FANTASY NEWS" links. The newsletter preview also features a photo of a football player and the text "ANALYSIS & OPINION".



