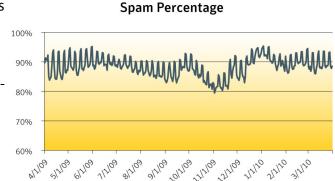


April 2010 Report #40

Scam and phishing messages in March accounted for 17 percent of all spam, which is 2 percentage points lower than in February. After the tragic earthquakes in Haiti and in Chile, there were no additional natural disasters for spammers to take advantage of. Instead, spammers contin-

ued to focus on seasonal and calendar events such as Easter holiday to deliver spam messages. With respect to spam message size, there was a sizeable increase in spam messages between 5kb and 10kb (up over 10 percentage points), which correlates to an increase in attachment spam. Overall, spam made up 89.34 percent of all messages in March, compared with 89.99 percent in February.

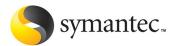


Symantec observed a 3 percent decrease from the previous month in all phishing attacks. This was primarily due to a decrease in volume of attacks generated from automated toolkits. 9 percent of phishing URLs were generated using automated phishing toolkits, a decrease of 35 percent from the previous month. However, there was an increase in the volume of unique URL and IP attacks. Unique URLs increased by 1.5 percent and IP attacks increased by nearly 4 percent from the previous month. A 9 percent decrease was observed in non-English phishing sites from the previous month. The decrease was due to a fall in the number of phishing attacks in French and Italian. There was a slight increase in the number of attacks in Chinese that was primarily in the e-commerce sector. More than 95 Web hosting services were used, which accounted for 12 percent of all phishing attacks.

The following trends are highlighted in the April 2010 report:

- Spam as Economic Indicator
- Mass Phishing of Retail Electronic Payment Brands
- Phishing of Indian Job Sites
- Will the Trend Continue?
- Easter, and Other Holidays
- March 2010: Spam Subject Line Analysis

| Dylan Morss Executive Editor Antispam Engineering | David Cowings Executive Editor Security Response |   |
|---|--|---|
| Eric Park Editor Antispam Engineering             | Mathew Maniyara Editor Security Response         | Sagar Desai PR contact sagar_desai@symantec.com |



# **Metrics Digest**

# **Global Spam Categories**

| Category<br>Name | March | February | Change<br>(% points) |
|------------------|-------|----------|----------------------|
| Adult            | 1%    | 1%       | No change            |
| Financial        | 12%   | 12%      | No change            |
| Fraud            | 7%    | 8%       | -1                   |
| Health           | 12%   | 11%      | +1                   |
| Internet         | 34%   | 33%      | +1                   |
| Leisure          | 5%    | 4%       | +1                   |
| 419 spam         | 6%    | 7%       | -1                   |
| Political        | <1%   | <1%      | No change            |
| Products         | 18%   | 19%      | -1                   |
| scams            | 4%    | 4%       | No change            |

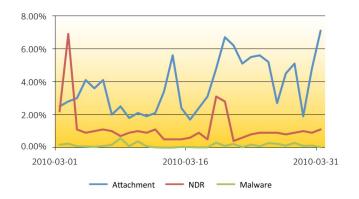
# **Spam URL TLD Distribution**

| TLD | March | February   | Change<br>(% points) |
|-----|-------|------------|----------------------|
| com | 47.0% | 57.2%      | -10.2                |
| ru  | 29.8% | 25.1%      | +4.7                 |
| net | 10.4% | 3.2%       | +7.2                 |
| cn  | 4.1%  | Not listed | N/A                  |

# **Average Spam Message Size**

| Message Size | March  | February | Change<br>(% points) |
|--------------|--------|----------|----------------------|
| 0-2kb        | 0.34%  | 0.52%    | -0.18                |
| 2kb-5kb      | 63.63% | 76.53%   | -12.9                |
| 5kb-10kb     | 25.02% | 14.39%   | +10.63               |
| 10kb+        | 11.01% | 8.56%    | +2.45                |

# **Spam Attack Vectors**





# **State of Spam & Phishing** A Monthly Report

# symantec...

# **Metrics Digest**

# **Spam Regions of Origin**



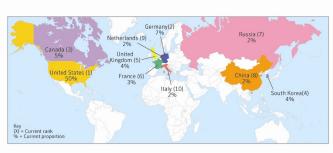
| Country             | March | February | Change<br>(% points) |
|---------------------|-------|----------|----------------------|
| United States       | 24%   | 23%      | +1                   |
| Brazil              | 5%    | 6%       | -1                   |
| Netherlands         | 5%    | 5%       | No change            |
| India               | 5%    | 5%       | No change            |
| Germany             | 3%    | 4%       | -1                   |
| United King-<br>dom | 3%    | 3%       | No change            |
| Poland              | 3%    | 3%       | No change            |
| South Korea         | 3%    | 3%       | No change            |
| France              | 3%    | 2%       | +1                   |
| Romania             | 3%    | 3%       | No change            |

# **Geo-Location of Phishing Lures**



| Country             | March | February   | Change<br>(% points) |
|---------------------|-------|------------|----------------------|
| United States       | 52%   | 51%        | 2                    |
| Canada              | 7%    | 4%         | 3                    |
| Germany             | 5%    | 6%         | -1                   |
| France              | 4%    | 4%         | No Change            |
| South Korea         | 4%    | 5%         | -1                   |
| Brazil              | 3%    | 2%         | 1                    |
| United King-<br>dom | 3%    | 3%         | No Change            |
| Russia              | 3%    | 3%         | No Change            |
| China               | 2%    | Not Listed | N/A                  |
| Italy               | 1%    | 2%         | -1                   |

# **Geo-Location of Phishing Hosts**

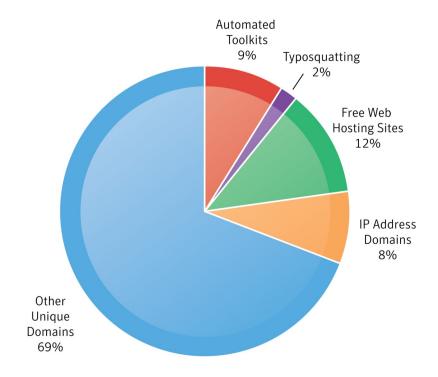


| Country           | March | February   | Change<br>(% points) |
|-------------------|-------|------------|----------------------|
| United States     | 50%   | 48%        | 2                    |
| Germany           | 7%    | 5%         | 2                    |
| Canada            | 5%    | 4%         | 1                    |
| South Korea       | 4%    | 5%         | -1                   |
| United<br>Kingdom | 4%    | 3%         | 1                    |
| France            | 3%    | 3%         | No Change            |
| Russia            | 2%    | Not listed | N/A                  |
| China             | 2%    | 2%         | No Change            |
| Netherlands       | 2%    | 2%         | No Change            |
| Italy             | 2%    | 2%         | No Change            |

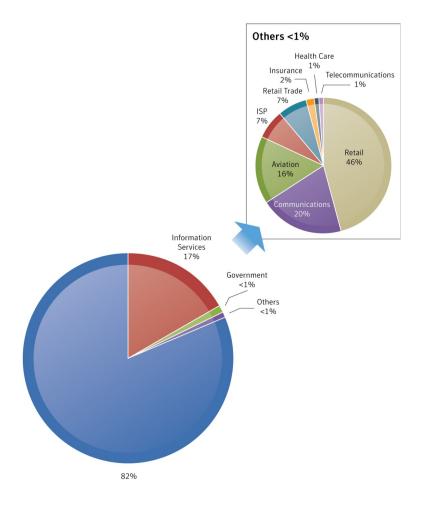


# **Metrics Digest**

# **Phishing Tactic Distribution**



#### **Phishing Target Sectors**



#### **Spam as Economic Indicator**

According to the National Bureau of Economic Research, the United States has been in a recession since December 2007. Looking through its Global Intelligence Network, Symantec found that this recession certainly kept the spammers busy at adapting to current events.

- October 2007 : Spammers Feed Off Housing Crisis
- January 2008: As Oil Prices Hike, Spammers Strike:
- February 2008: Rising gas prices lead spammers to bio-fuel
- June 2008 : Economic Climate Helps Fuel Spam Climate
- August 2008 : Gas prices and foreclosures remain a focus
- September 2008: Job Seekers: Beware of Bogus Recruiting Ads bearing Viruses
- November 2008: Economic bailout package & FDIC guarantee get the attention of some spammers
- January 2009: Spammers Use the Recession to Enter Your Inbox
- March 2009: Economic woes bring good tidings for spammers.
- April 2009: Spammers Rethink Their Mortgage Strategy
- March 2010: Job offer spam signaling an upturn in the economy??

While the United States consumer sentiment remained unchanged in March 2010, top ten subject lines containing economic keywords show that spammers have an optimistic view of the economy with job offer spam among their top spam subject lines.

- 1. Get the Job fast this one
- 2. Job seekers in USA
- 3. Finance Manager vacancy
- 4. FW: Global job vacancy
- 5. Job position REF83782 USA only
- 6. Finance ManagerUSA postion
- 7. Get a diploma for a better job
- 8. Need a job?
- 9. RE: Your Job is at stake
- 10. Looking good does not have to bankrupt you

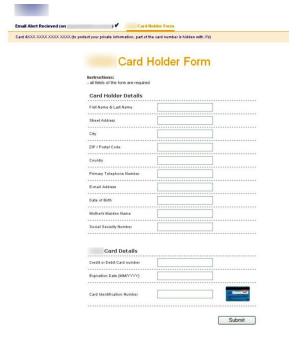


#### **Mass Phishing of Retail Electronic Payment Brands**

Symantec observed a mass phishing attack on two major brands that provide retail electronic payment services for banks across the globe. Phishers initiated a massive attack that made up 4.4 percent of all unique phishing websites. (Fraudsters developed the phishing websites in non-English languages as well, with French being the most utilized.) The phishing websites were targeted toward customers by spam mails containing the subject "your XXX card 4XXX XXXX XXXXX: possible fraudulent transaction ID."

There were two distinct types of phishing websites observed in the attack:

1. The first type was created using automated phishing toolkits. The most common TLD utilized was '.cz', which represents the Czech Republic. In this case, customers are asked to enter their sensitive information into a "Card Holder Form" page to complete the fake verification process.



2. The second type of attack consisted of URLs with IP domains (for example, an URL like http://255.255.255.255/index.html) . The IPs were hosted on US-based servers. The URLs were found to be very long, usually with more than 700 characters. In these attacks, the page asked for sensitive information, but the credit or debit card number was auto-assigned.

| For security reason<br>requested below. | is please | e prov | ide info | rmatio |
|---|-----------|--------|----------|--------|
| Card Type:                              | Debit     | *      |          |        |
| card<br>number:                         |           |        |          |        |
| Expiration Date:                        | 1         |        | (MMA)    | YYY)   |
| Signature Panel<br>Code:                |           |        |          |        |
| ATM PIN:                                |           |        |          |        |



#### The Phishing of Indian Job Sites

Despite the global economic slowdown, India witnessed a high number of new jobs in the country during the first quarter of 2010. With the job market looking positive, job sites seem to have benefited with more users accessing their websites.

Below is a screenshot of a phishing website that takes advantage of the brand of a popular Indian job site:

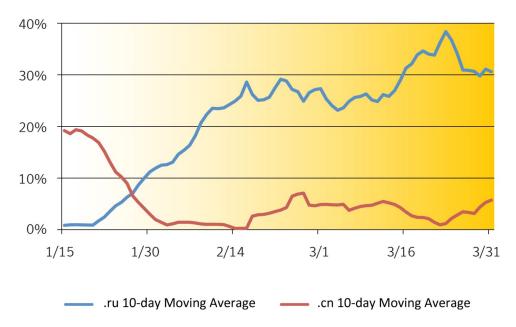
|  |   | We enable  | Employe                 | Job Seeker? Click here   Report a Problem  "S Login                  |
|--|---|--|-------------------------|--|
| The state of the s | <ul> <li>o:</li> <li>ource the best talent from a database of over<br/>earchable resumes.</li> </ul>  | million  | Username:<br>Password:  |  |
| P  | nhance your reach by publishing your jobs<br>rint publications who we have partnered wit<br>rganize and simplify your recruitment pr<br>ur response management tools. | th.  | E-mail ID:<br>Password: | Sign In  |
|  | Buy Now   |  |                         | Forgot Password?  New Clients - Register Now                         |
|  |   |  |                         | or Request information   |
| 200  |   |  | From US                 |  |
|  |   |  | From UK<br>From India   |  |
| Post a Job   | Manage Responses  | Search Our databa  | ise                     | Mobile Solutions   |
| Post a job in easy steps and start<br>receiving applications the same  | Create your very own centralized database of responses, accessible from anywhere.   | Largest online dat   |                         | Innovative recruitment solutions<br>now on the mobile.               |
| day Save time and receive most relevant responses using our intelligent filter technology.   | accessible from anywhere. Shortlisting made easier. See the most relevant resumes first.  | Find the right cand<br>and quickly throug<br>Search Engine |                         | Hire the right, relevant candidates<br>almost instantly through SMS. |

The increased number of candidates seeking jobs in India has led to the launch of phishing attacks on Indian job sites. The phishing page in the above example is asking for potential employers' login credentials. The phishing website was created on servers located in the Netherlands. The credentials consist of a username and password as well as the employer's email ID and password. After stealing these credentials, fraudsters send targeted spam messages to the employers. The spam message states that the employer is required to pay an amount to upgrade or continue his access of particular recruitment solutions. The link provided to make the payment leads to a phishing page that asks for confidential information such as credit card numbers, pin number, etc. Attackers also masquerade as the employer to send spam containing fake job opportunities to job seeking candidates—an action that means the attackers are always seeking financial gain.



#### Will the Trend Continue?

In last two reports, Symantec kept an eye on the sharp decline in spam containing .cn URLs as well as associated increase in spam messages with .ru domains. As the graph below illustrates, China Internet Network Information Center (CNNIC)'s action to tighten registration of .cn domains had a huge impact on spam messages containing .cn URLs. Unfortunately, spammers have found themselves a refuge in .ru domains as spam messages containing .ru domains increased dramatically. Spammers have either given up on finding a loophole for .cn domains or are currently happy with .ru domains.



EMEA region further solidified its status of "king" in origin of spam as it sent 44.7% of world-wide spam in March, which represents 1.5 percentage point increase.

| Region           | March | February | Change<br>(% points) |
|------------------|-------|----------|----------------------|
| North<br>America | 24.5% | 23.5%    | +1.0                 |
| Latin America    | 11.7% | 13.7%    | -2.0                 |
| APJ              | 19.1% | 19.6%    | -0.5                 |
| EMEA             | 44.7% | 43.2%    | +1.5                 |

In EMEA region, top ten countries (Netherlands, Germany, United Kingdom, Poland, France, Romania, Italy, Spain, Russia, and Czech Republic) made up over 62% of the region's volume.



#### **Easter, and Other Holidays**

After focusing on tragic events in Haiti and Chile, spammers have once again turned their attention to seasonal calendar events.



#### March 2010: Spam Subject Line Analysis

In March 2010, the top ten subject lines were dominated by online pharmacy and some replica product spam. Spammers continue to use misleading subject lines such as "News on myspace" and "Important notice: Google Apps browser support" in their online pharmacy spam messages.

| #  | Total Spam: March 2010 Top Subject<br>Lines   | No<br>of<br>Days | Total Spam: February 2010 Top Subject<br>Lines | No<br>of<br>Days |
|----|---|------------------|--|------------------|
| 1  | Blank Subject line                            | 31               | RE: SALE 70% 0FF on Pfizer                     | 21               |
| 2  | News on myspace                               | 31               | Blank Subject line                             | 28               |
| 3  | Important notice: Google Apps browser support | 31               | Search Your Area Free                          | 8                |
| 4  | Important notice: Google                      | 31               | You have a new personal message                | 28               |
| 5  | You have a new personal message               | 31               | Delivery Status Notification (Failure)         | 28               |
| 6  | Bestsellers. 70% Discount.                    | 12               | Replica Watches                                | 28               |
| 7  | SALE 79% OFF on PFIZER!                       | 4                | News on myspace                                | 27               |
| 8  | Replica Watches                               | 24               | Important notice: Google Apps browser support  | 27               |
| 9  | Delivery Status Notification (Failure)        | 31               | Important notice: Google                       | 27               |
| 10 | RE: SALE 70% OFF on PFIZER!                   | 11               | Hi   | 28               |



#### Checklist: Protecting your business, your employees and your customers

#### Do

- Unsubscribe from legitimate mailings that you no longer want to receive. When signing up to receive mail, verify what additional items you are opting into at the same time. Deselect items you do not want to receive.
- Be selective about the Web sites where you register your email address.
- Avoid publishing your email address on the Internet. Consider alternate options for example, use a separate address when signing up for mailing lists, get multiple addresses for multiple purposes, or look into disposable address services.
- Using directions provided by your mail administrators report missed spam if you have an option to do so.
- · Delete all spam.
- Avoid clicking on suspicious links in email or IM messages as these may be links to spoofed websites. We suggest typing web addresses directly in to the browser rather than relying upon links within your messages.
- Always be sure that your operating system is up-to-date with the latest updates, and employ a comprehensive security suite. For details on Symantec's offerings of protection visit <a href="http://www.symantec.com">http://www.symantec.com</a>.
- Consider a reputable antispam solution to handle filtering across your entire organization such as Symantec Brightmail messaging security family of solutions.
- Keep up to date on recent spam trends by visiting the Symantec State of Spam site which is located <a href="https://example.com/here.">here.</a>

#### Do Not

- Open unknown email attachments. These attachments could infect your computer.
- Reply to spam. Typically the sender's email address is forged, and replying may only result in more spam.
- Fill out forms in messages that ask for personal or financial information or passwords. A
  reputable company is unlikely to ask for your personal details via email. When in doubt,
  contact the company in question via an independent, trusted mechanism, such as a verified telephone number, or a known Internet address that you type into a new browser
  window (do not click or cut and paste from a link in the message).
- Buy products or services from spam messages.
- Open spam messages.
- Forward any virus warnings that you receive through email. These are often hoaxes.

<sup>\*</sup> Spam data is based on messages passing through Symantec Probe Network.

<sup>\*</sup> Phishing data is aggregated from a combination of sources including strategic partners, customers and security solutions.