The earthquake in Haiti drove up the volume of scam and phishing messages in January 2010 as spammers used the tragic event for their benefit. Both scam and phishing categories doubled as in percentage of all spam in January 2010 compared to December 2009. With 419-Nigerian spam becoming more prevalent again, the total of scam and phishing messages came in at 21 percent of all spam, which is the highest level recorded since the inception of this report.

On the seasonal spam front, spammers used the upcoming Valentine's Day holiday to send various types of product spam and malware. Even with the Valentine's Day product spam push, it was not enough to make up for Christmas-related product spam as the product category decreased by 7 percentage points in January 2010.

Phishing attacks are getting more and more targeted in nature and are focused on attacking major brands rather than being mass attacks. Symantec observed a 25 percent decrease from the previous month in all phishing attacks. The decline in phishing attacks was primarily due to a decrease in the volume of phishing toolkit attacks. It would be important to note that phishing attacks are measured based upon the number of new active phishing sites whereas phishing email messages (spam) are a delivery mechanism to reach phishing sites. In January, 14 percent of phishing URLs were generated using phishing toolkits, a decrease of 50 percent from the previous month. A 16 percent decrease was observed in non-English phishing sites as well. More than 95 Web hosting services were used, which accounted for 13 percent of all phishing attacks, a decrease of 12 percent in total Web host URLs when compared to the previous month.

The following spam and phishing trends are highlighted in the February 2010 report:
- No Sympathy From Spammers
- Spam Calendar of Events
- CNNIC Clamps Down
- Will the Trend Continue?
- January 2010: Spam Subject Line Analysis
- Adult Phishing Scams

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Metrics Digest

Global Spam Categories

Category Name	January	December	Change (% points)
adult	2%	1%	+1
financial	11%	13%	-2
fraud	10%	5%	+5
health	14%	16%	-2
internet	31%	31%	No Change
leisure	6%	7%	-1
419 spam	7%	4%	+3
political	<1%	<1%	No Change
products	14%	21%	-7
scams	4%	2%	+2

Spam URL TLD Distribution

TLD	January	December	Change (% points)
com	68.6%	59.1%	+9.5
cn	11.9%	24.4%	-12.5
org	7.8%	4.8%	+3.0
ru	4.9%	1.0%	+3.9

Average Spam Message Size

Message Size	January	December	Change (% points)
0-2kb	0.83%	1.50%	-0.67
2kb- 5kb	72.02%	78.10%	-6.08
5kb-10kb	22.58%	13.49%	+9.09
10kb+	4.57%	6.91%	-2.34

Spam Attack Vectors
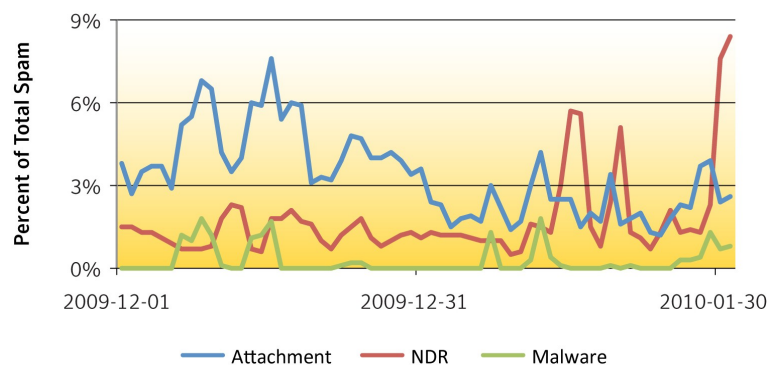
Metrics Digest

Spam Regions of Origin
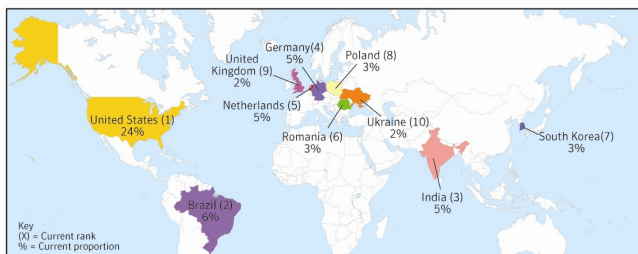
Country	January	December	Change (% points)
United States	24%	23%	+1
Brazil	6%	11%	-5
India	5%	5%	0
Germany	5%	2%	+3
Netherlands	5%	3%	+2
Romania	3%	3%	0
South Korea	3%	3%	0
Poland	3%	3%	0
United Kingdom	2%	Not Listed	N/A

Geo-Location of Phishing Lures
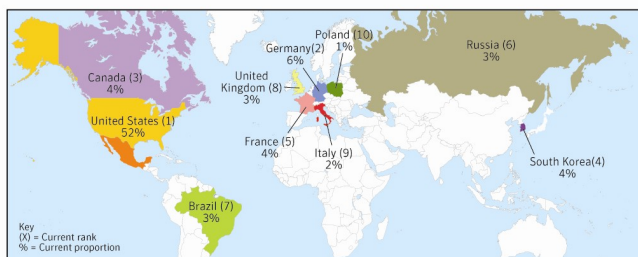
Country	January	December	Change (% points)
United States	52%	37%	+15
Germany	6%	3%	+3
Canada	4%	5%	-1
South Korea	4%	5%	-1
France	4%	4%	No Change
Russia	3%	2%	+1
Brazil	3%	3%	No Change
United Kingdom	3%	3%	No Change
Italy	2%	Not listed	N/A
Poland	1%	Not listed	N/A

Geo-Location of Phishing Hosts
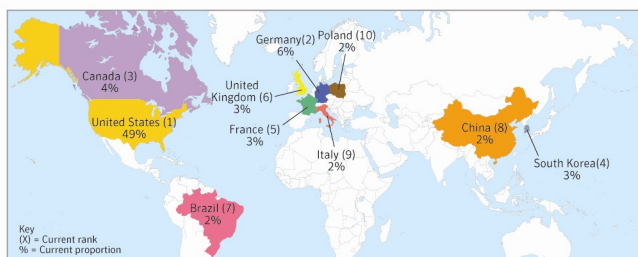
Country	January	December	Change (% points)
United States	49%	43%	+6
Germany	6%	4%	+2
Canada	4%	3%	+1
South Korea	3%	3%	No Change
France	3%	3%	No Change
United Kingdom	3%	3%	No Change
Brazil	2%	3%	-1
China	2%	7%	-5
Italy	2%	Not listed	N/A
Poland	2%	Not listed	N/A

Metrics Digest

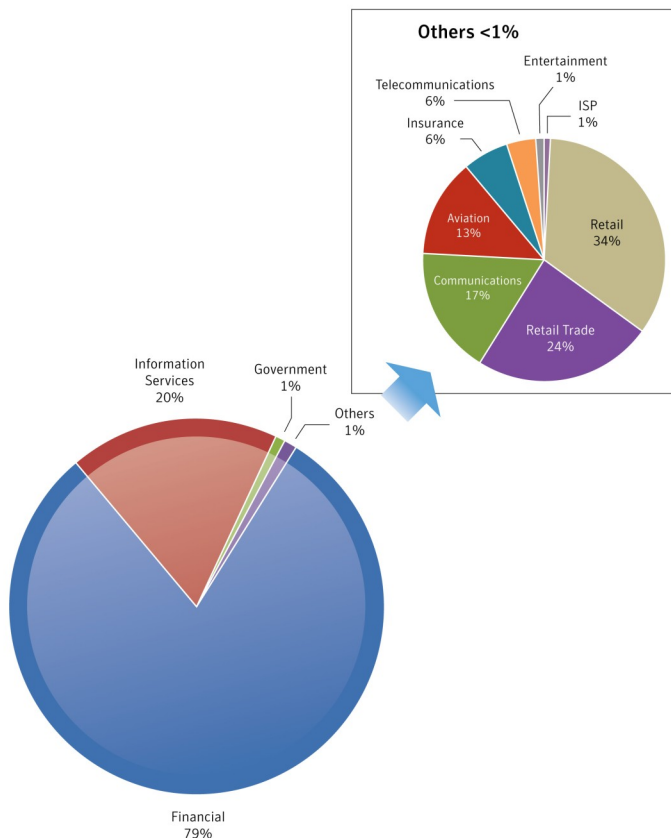**Phishing Tactic Distribution**

Overall Statistics

Phishing sites were categorized based upon the domains they leveraged. In January, the total phishing volume decreased significantly by 25 percent. The drop was observed in most sectors including automated toolkit attacks and unique phishing. The sectors that increased from the previous month were typosquatting and IP domains.
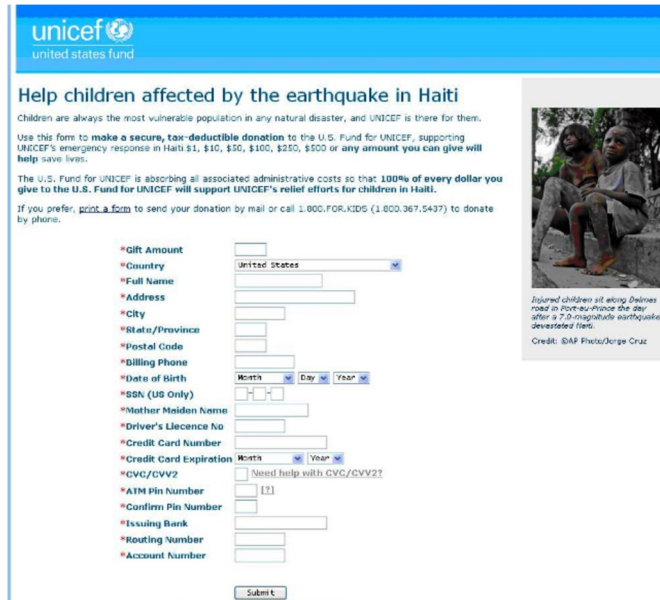
Automated Toolkits
14%

Typosquatting
2%

Free Web
Hosting Sites
13%

IP Address
Domains
6%

Other
Unique
Domains
65%
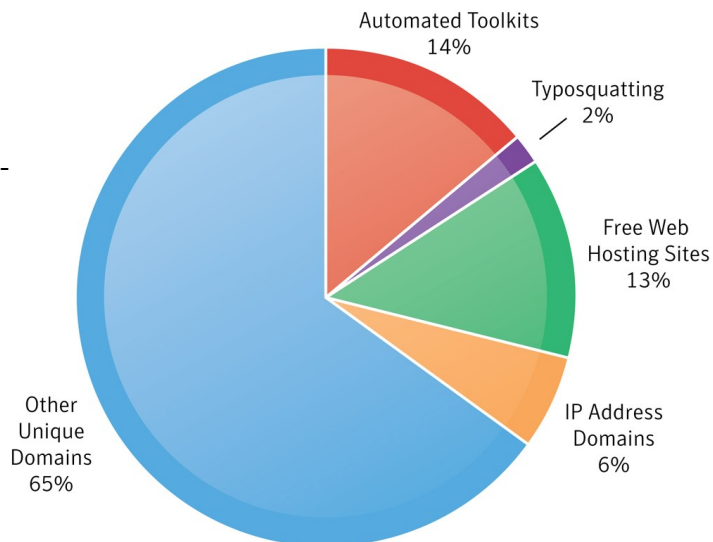
Phishing Target Sectors

Sectors

Others <1%

Telecommunications
6%

Insurance
6%

Aviation
13%

Communications
17%

Entertainment
1%

ISP
1%

Retail
34%

Retail Trade
24%

Information
Services
20%

Government
1%

Others
1%

Financial
79%

No Sympathy From Spammers

After the tragic earthquake in Haiti on January 12, 2010, relief efforts have poured into the nation from all over the world. Spammers, on the other hand, have taken advantage of this opportunity to send various spam messages related to the tragedy. Symantec researchers have found that spammers usually take advantage of such breaking news events approximately 24-48 hours after the event takes place, and the earthquake in Haiti was no exception.

Spammers started with 419 type spam, asking users to donate money to a charity. When users send their donation, the money disappears into an offshore bank account. Building off of this, spammers began to send phishing messages, pretending to be from a well-known legitimate organization like UNICEF.


Spammers did not stop there. They also took advantage of this tragedy to deliver malware. In the example (right), users download a Trojan when they click on the link to view the video.

Symantec suggests that users:

- Avoid clicking on suspicious links in e-mail or instant messages as these may be links to spoofed, or fake, Web sites.
- Never fill out forms in messages that ask for personal or financial information or passwords. A reputable charitable organization is unlikely to ask for your personal details via e-mail. When in doubt, contact the organization 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).

Spam Calendar of Events

Even though the holiday season has passed, spammers continue to leverage calendar events, such as major holidays, to lure users into opening their unwanted messages. Symantec researchers have observed that spammers are getting an early start to Valentine's Day by sending spam messages promoting everything from personalized wine to pills. As Valentine's Day is recognized globally, there was also non-English spam observed exploiting the holiday.
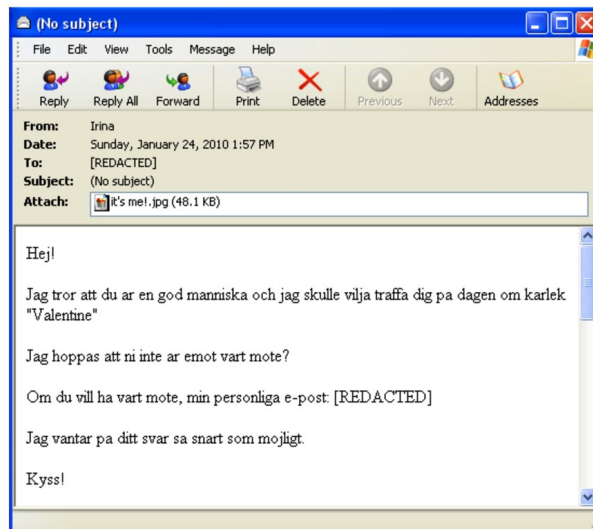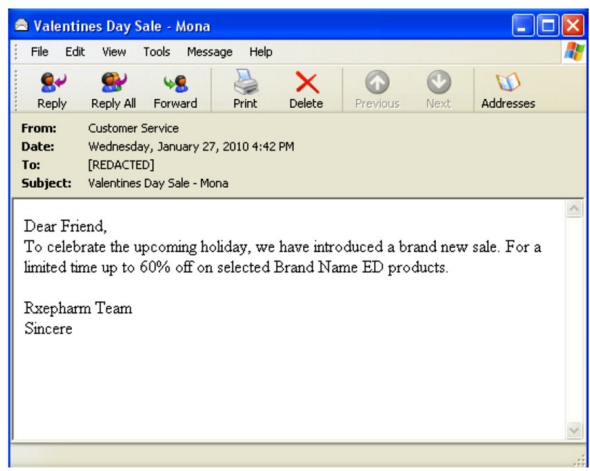

In addition to Valentine's Day spam, Symantec researchers anticipate that there may be an uptick in phishing messages involving the Internal Revenue Service (IRS). Spammers will be exploiting users as the April 15 deadline for filing taxes approaches. In anticipation of this tax-day spam trend, Symantec advises users to be cautious when opening messages pretending to be from IRS, especially those that claim the recipient owes money or is entitled to a tax refund.

CNNIC Clamps Down

In early January, China Internet Network Information Center (CNNIC) announced the suspension of new overseas .cn domain registrations. CNNIC stated that this suspension will allow them to implement a better procedure to verify registrant information from overseas registrations. This was a follow-up action to a related move in mid-December that required registrants to submit additional paperwork.

As noted in the Metrics Digest section, spam messages with .cn domain URL dropped by more than half in January, compared to December. Also, the chart below shows precipitous drop towards end of January.

Percent of Total Spam


Legend: .CN — 10-day Moving Average
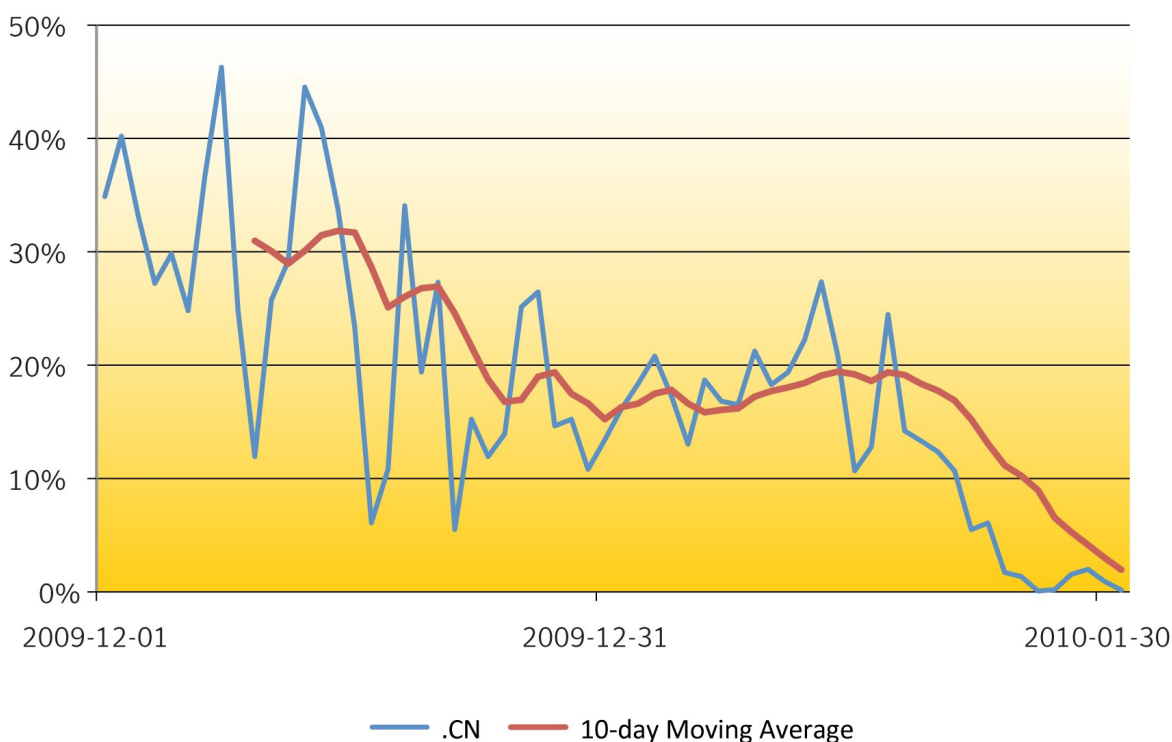
The McColo shutdown in 2008 caused an immediate steep decline in overall spam volume. However, in the subsequent months, spam volumes rose steadily and eventually reached their pre-shutdown levels. As such, it is too early to declare the demise of .cn domain spam. Nevertheless, this shows that certain policies can directly affect the spam threat landscape for the better.

Will the Trend Continue?

One of the highlights from the January 2010 report was "dotted quad" spam, as the volume of this type of spam tripled from the previous month. While the volume continued to increase in January 2010, Symantec researchers did not see a similar rate of increase.

"Dotted Quad" Spam
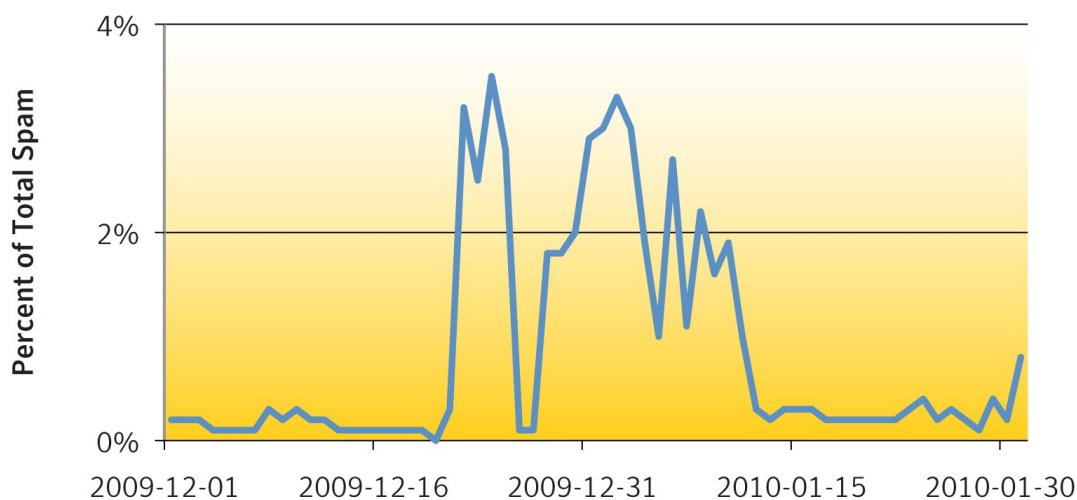
Another pattern highlighted in the last report was the potential reversal of shift in the origin of spam as EMEA regained the "king" title of spam it lost. Symantec has observed the continuation of this reversal as the EMEA region sent over 42 percent of spam worldwide, representing a 7.9 percentage point increase from December.

Region	January	December	Change (% points)
North America	24.6%	23.7%	+0.9
Latin America	13.9%	20.9%	-7.0
APJ	19.2%	21.0%	-1.8
EMEA	42.3%	34.4%	+7.9

January 2010: Spam Subject Line Analysis

In January 2010, the top ten subject lines used by spammers were dominated by a mixture of Nigerian- type (419) and online pharmacy spam. It is interesting to see that spammers have changed their tactics regarding online pharmacy spam. Subject lines such as "Must-Know Rules Of Better Shopping" and "You Must Know About This Promotion" are more vague than "RE: SALE 70% OFF on Pfizer." Other misleading subject lines such as "Confirmation Mail" and "Special Ticket Receipt" were also used for online pharmacy spam messages.

#	Total Spam: January 2010 Top Subject Lines	No of Days	Total Spam: December 2009 Top Subject Lines	No of Days
1	*Blank Subject line*	31	urgent	19
2	Please read	26	Please read	14
3	Confirmation Mail	25	*Blank Subject line*	31
4	New Year Sales	25	Kelly Has Sent You A Message	13
5	Deal of the Day	25	RE: SALE 70% OFF on Pfizer	31
6	Must-Know Rules Of Better Shopping	25	Replica Watches	16
7	Special Ticket Receipt	25	Personal 71% off	31
8	Replica Watches	31	Personal 73% off	31
9	You Must Know About This Promotion	25	Personal 79% off	31
10	You have a new personal message	25	Personal 78% off	31

Adult Phishing Scams

Symantec observed a new trend in adult oriented phishing. The phishing site states that the end user can obtain free pornography after logging in or signing up. These offers tempt users into entering their credentials in the hopes of obtaining pornography. Upon entering login credentials, the site redirects to a pornographic website that then leads to a fake antivirus website containing malicious code. 92 percent of adult phishing scams were on social networking sites, with the remainder on information services brand. The phishing sites were created using free webhosting services.

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. De-select 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 http://www.symantec.com.
- 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 here.

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.