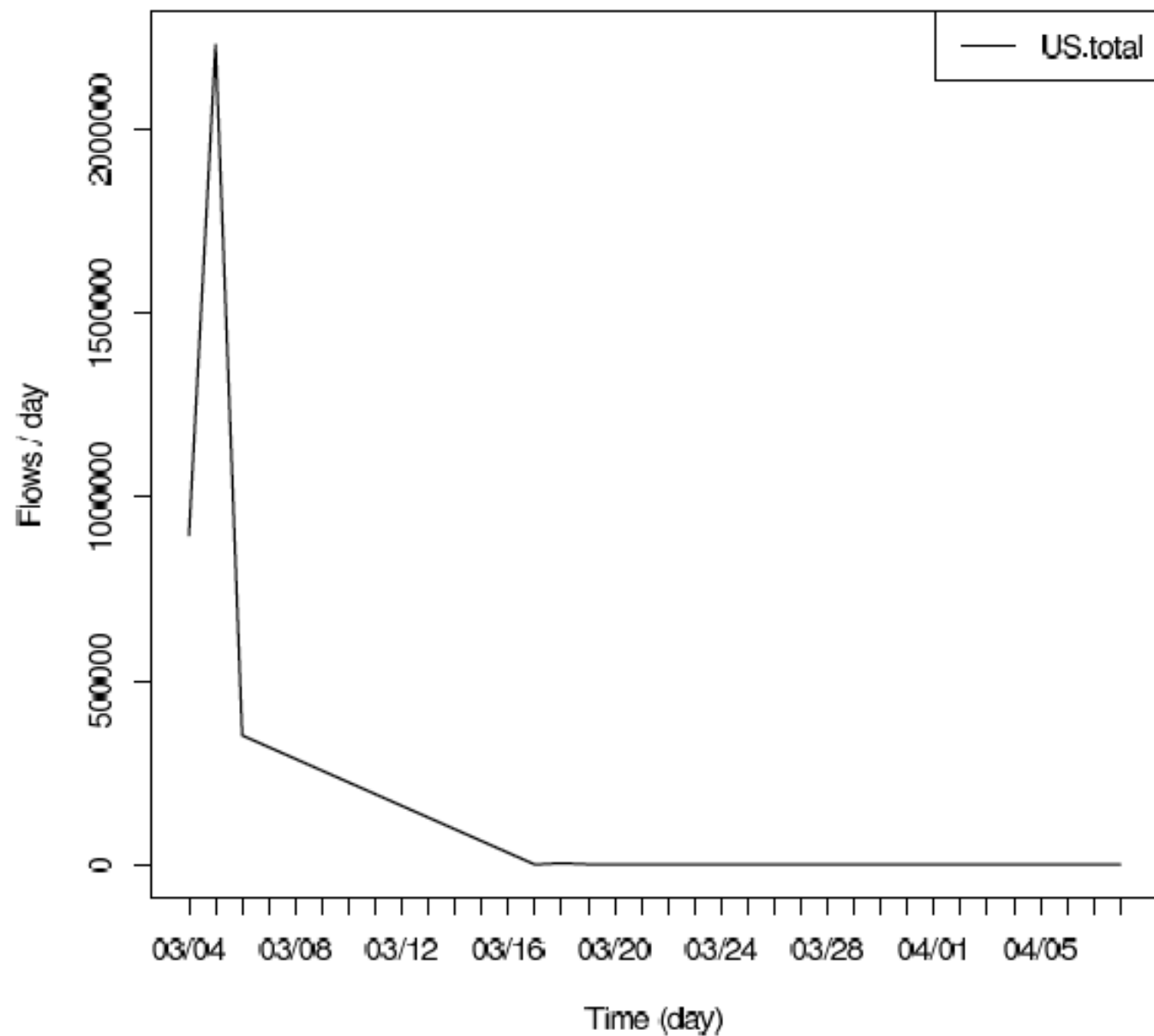


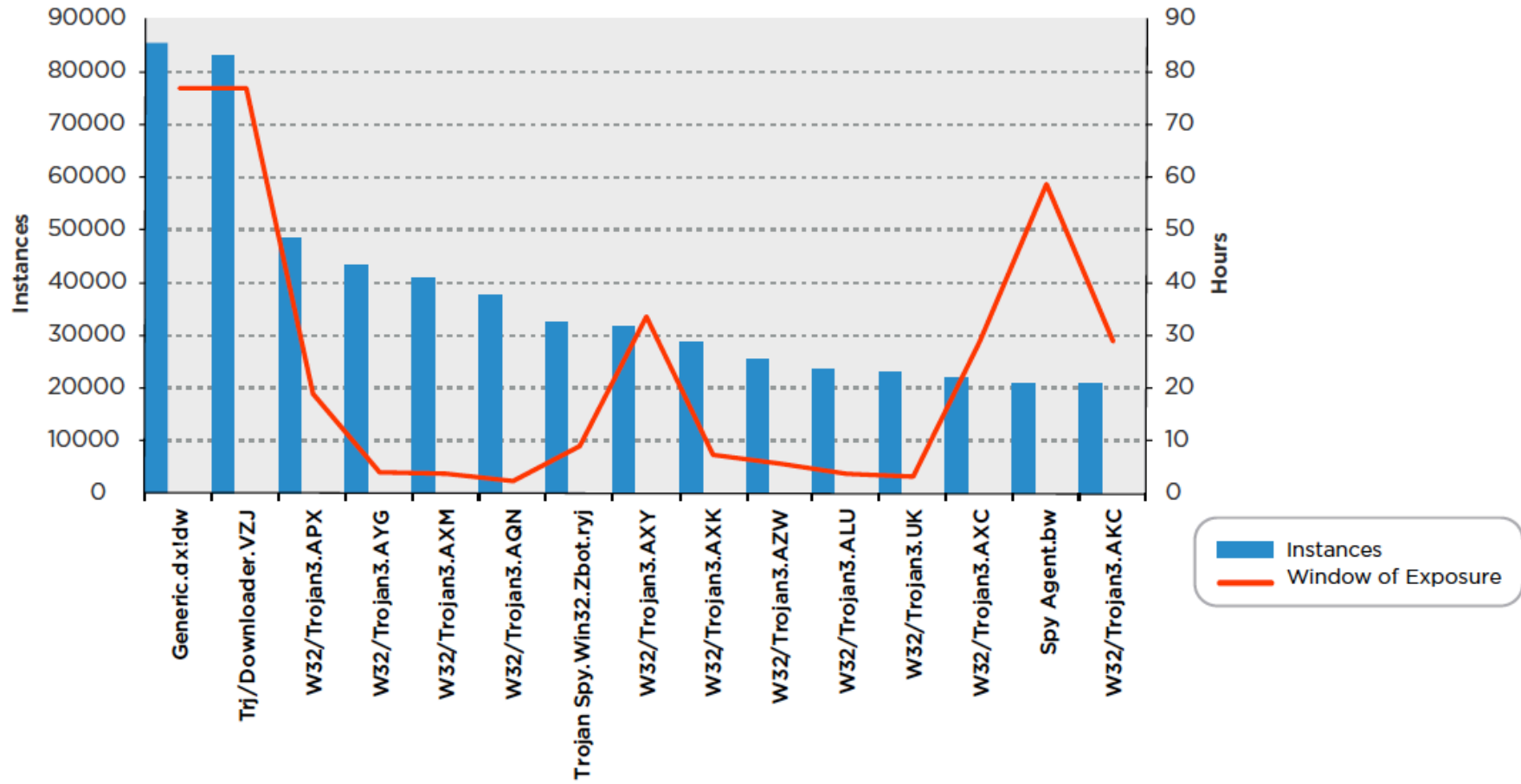
(a) Presence of violations

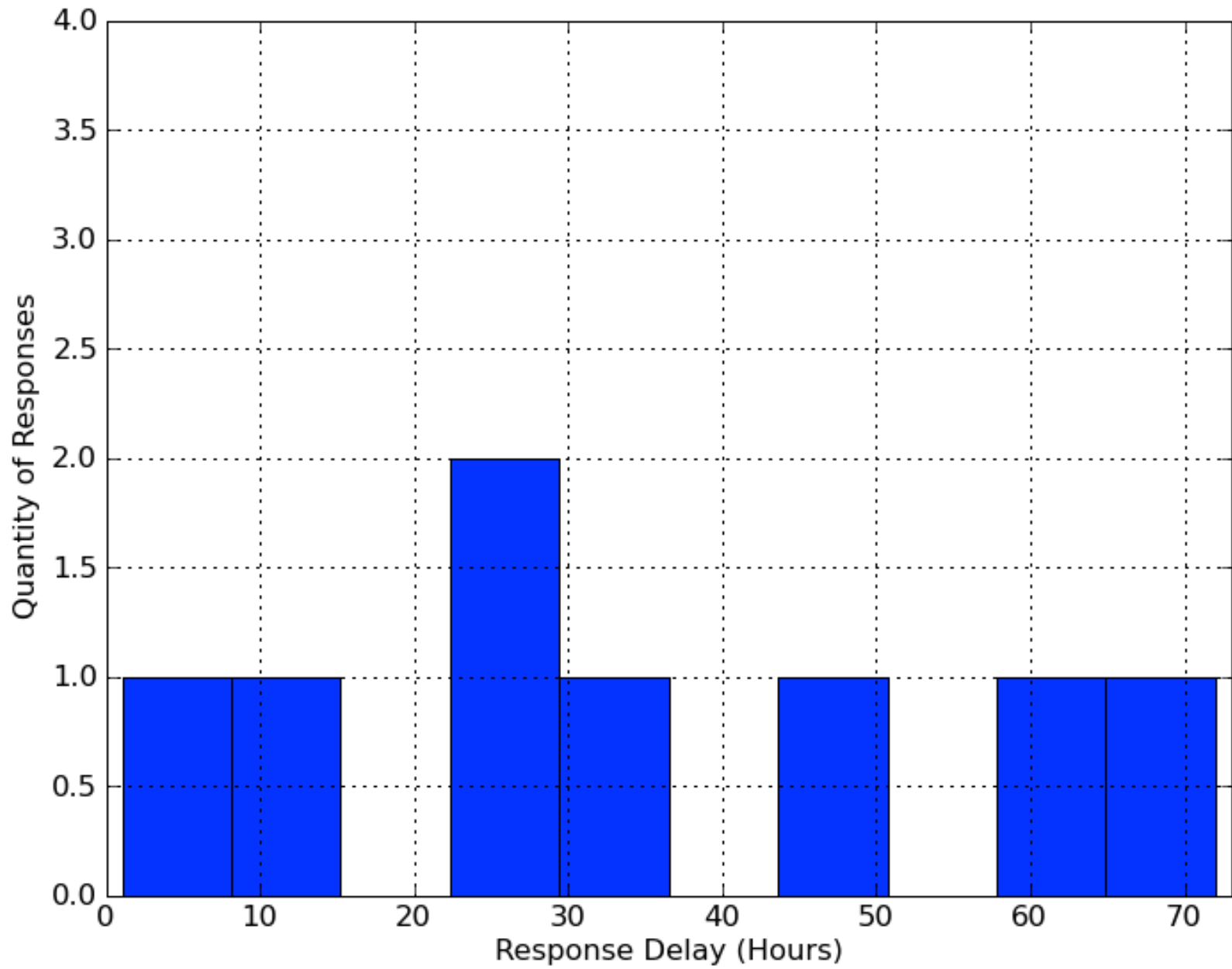


(b) Total traffic for 62.34.164.84.

AV Vendor Confirmed ThreatSeeker Catches

Jan 2009 - Jun 2009





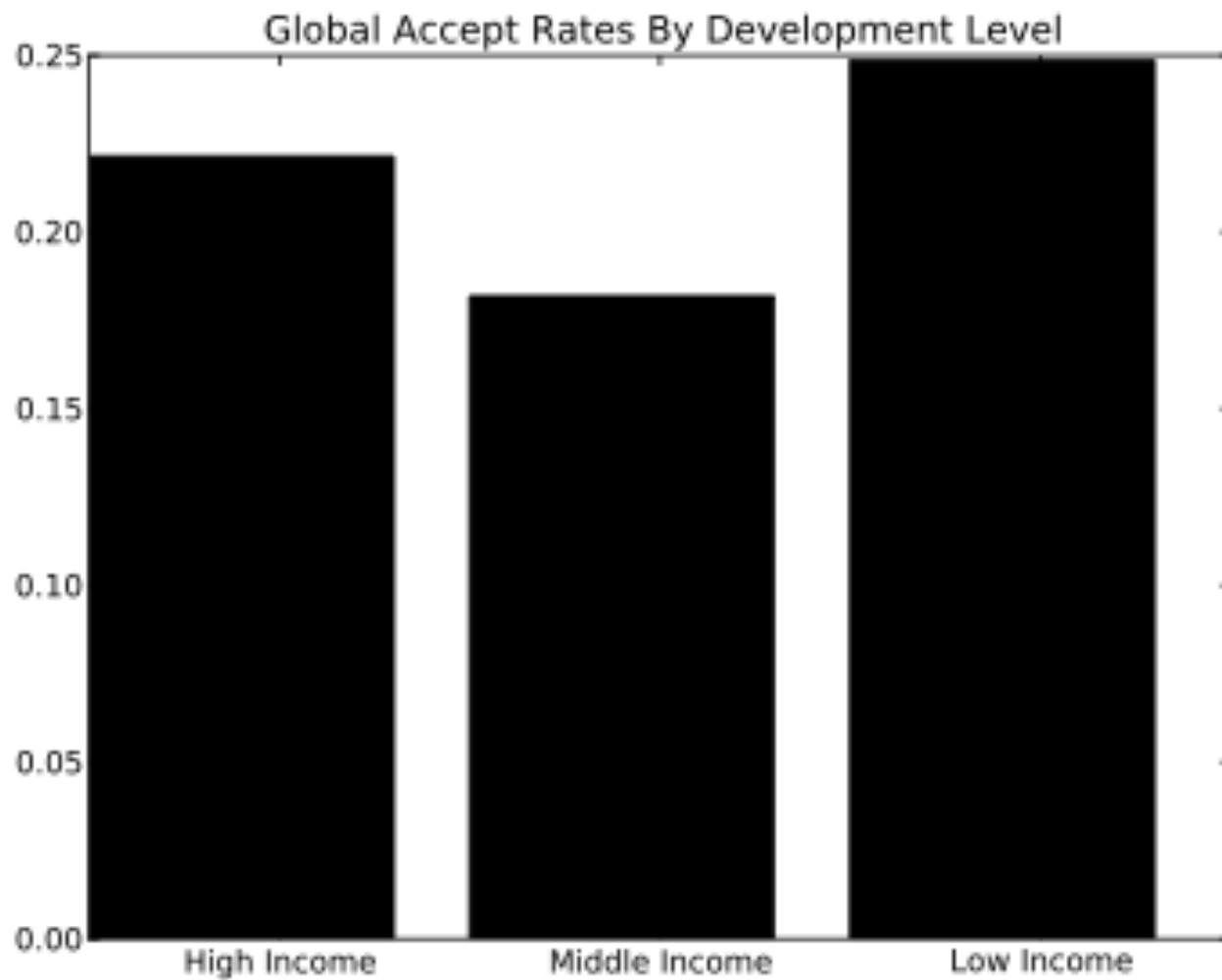
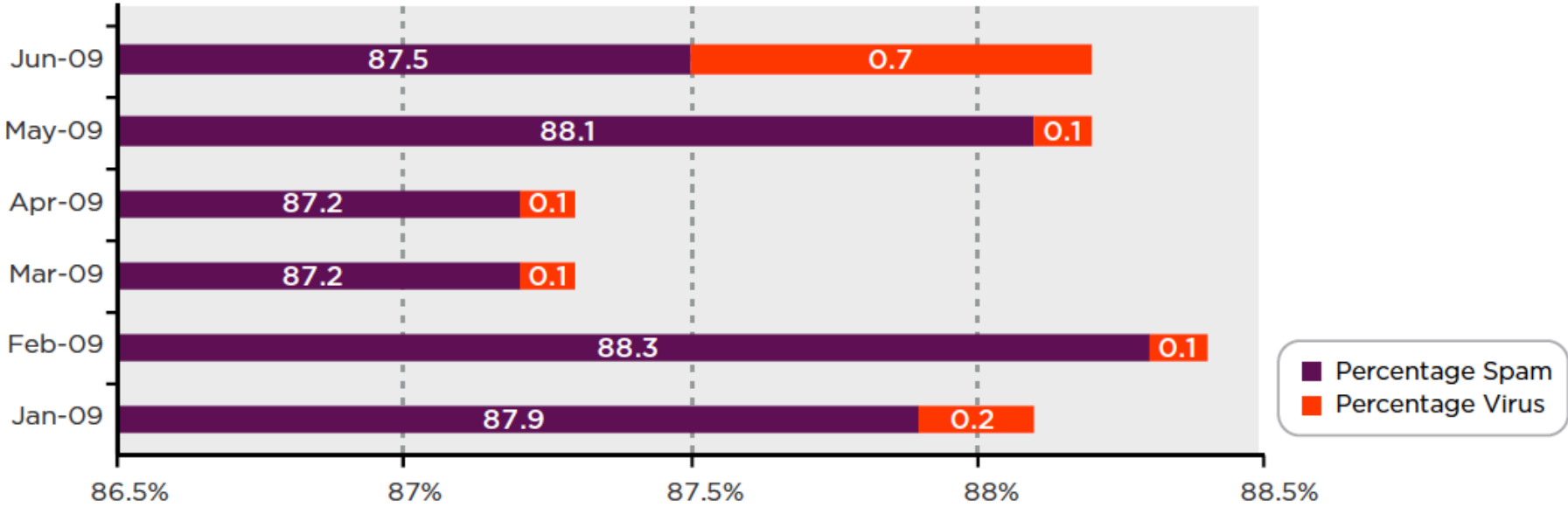
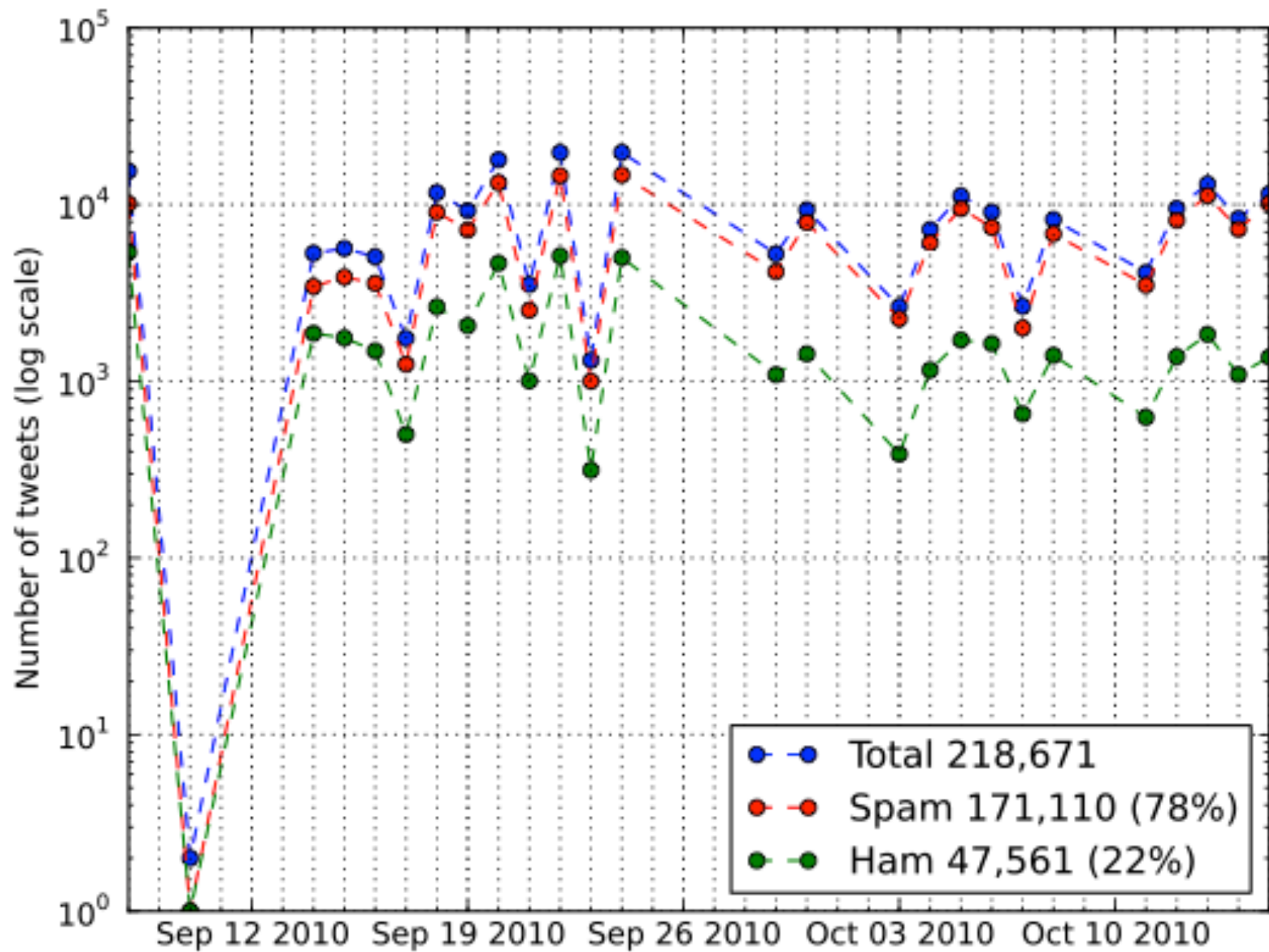
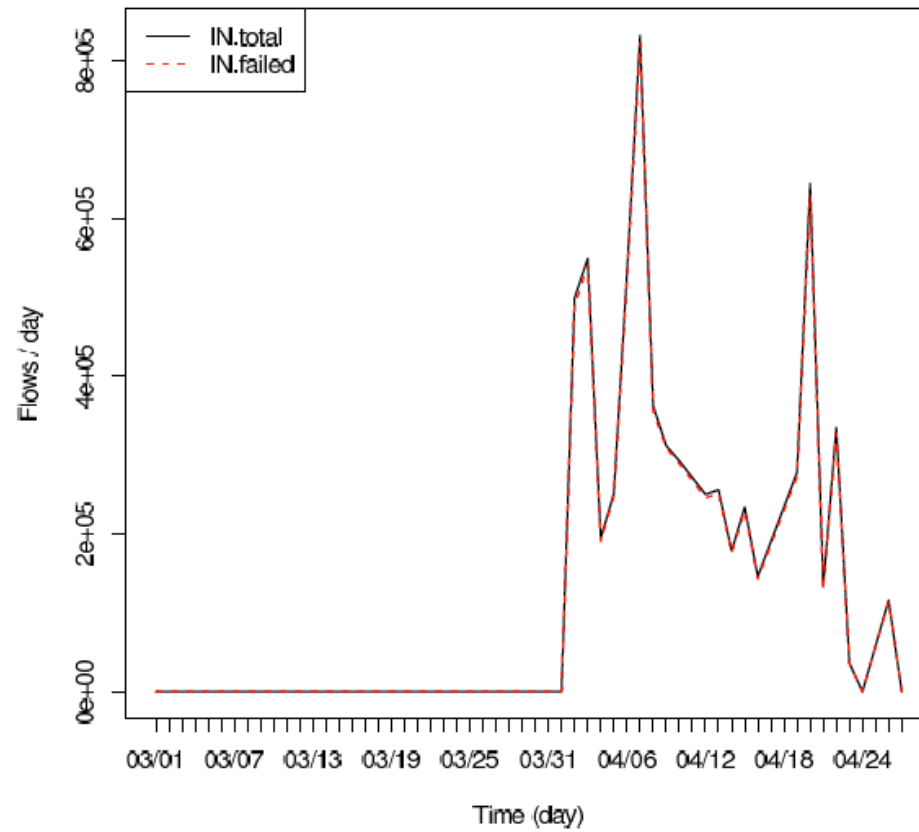
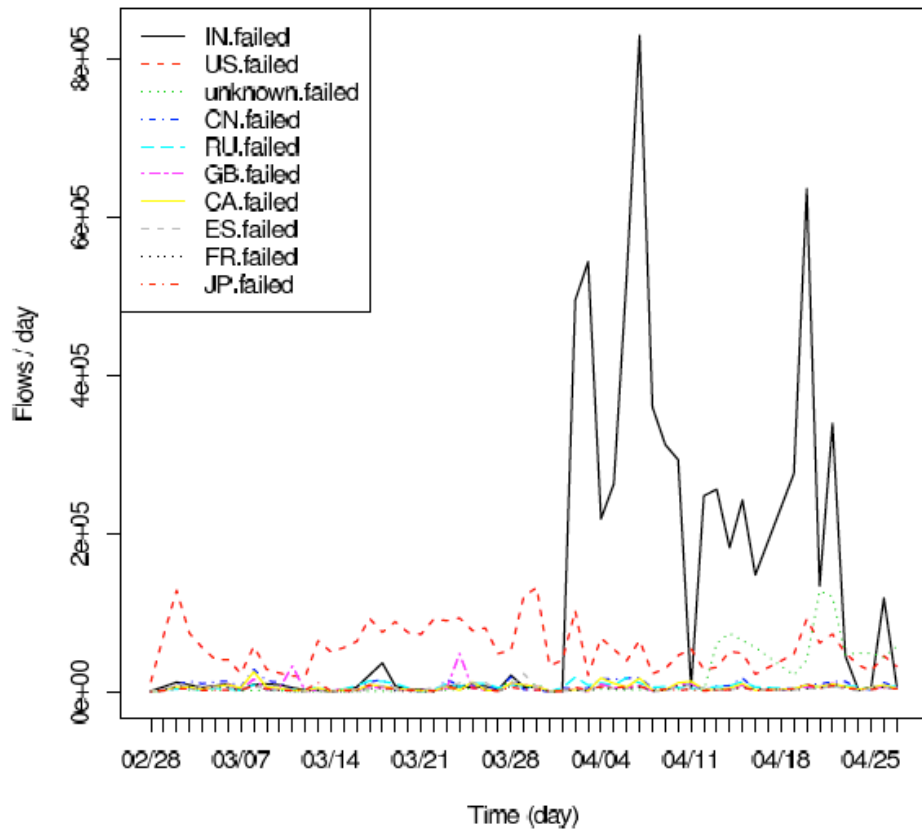


Figure 4: Spam Delivery Rates grouped by Income

Percentage of Global Spam - Classified as Spam or Containing Virus







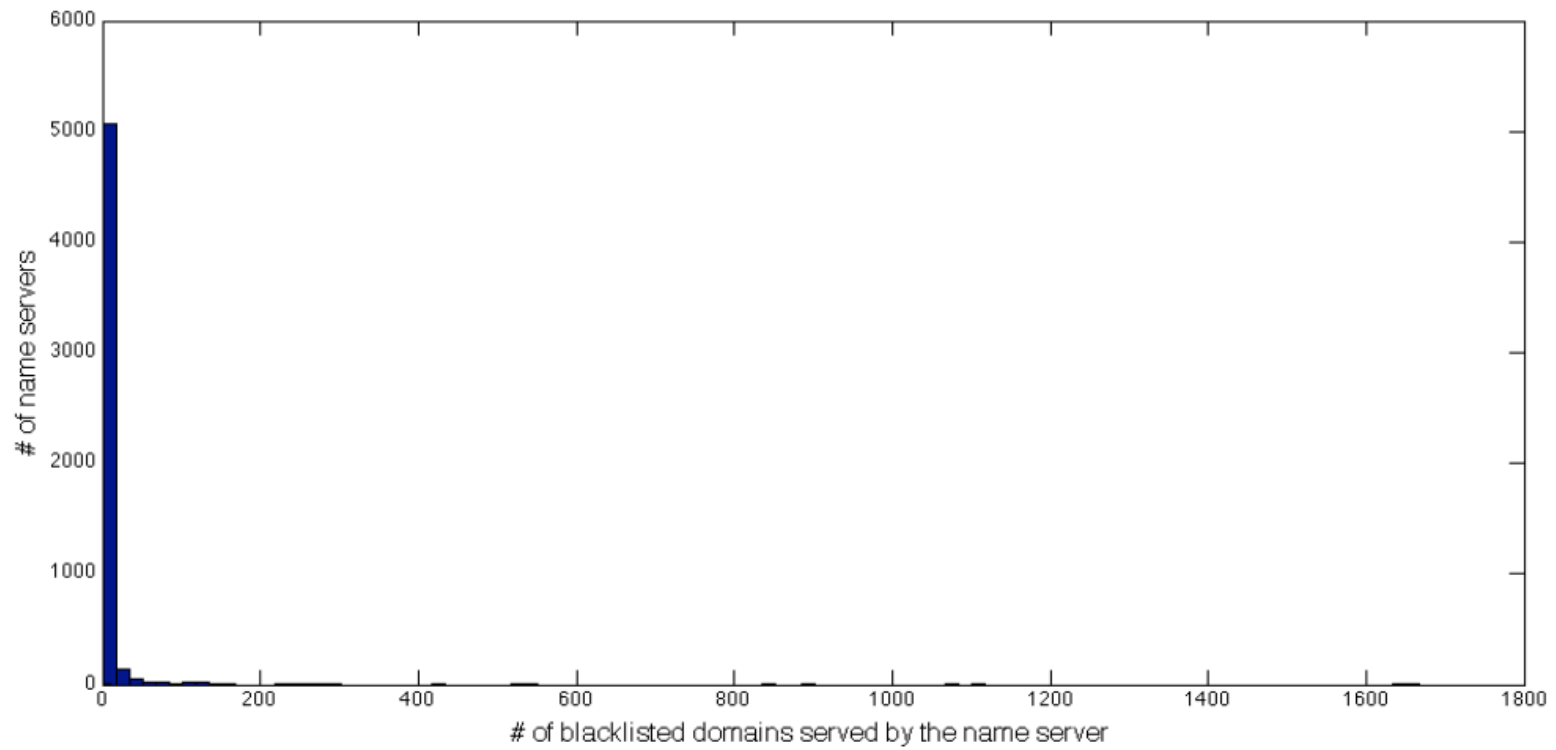
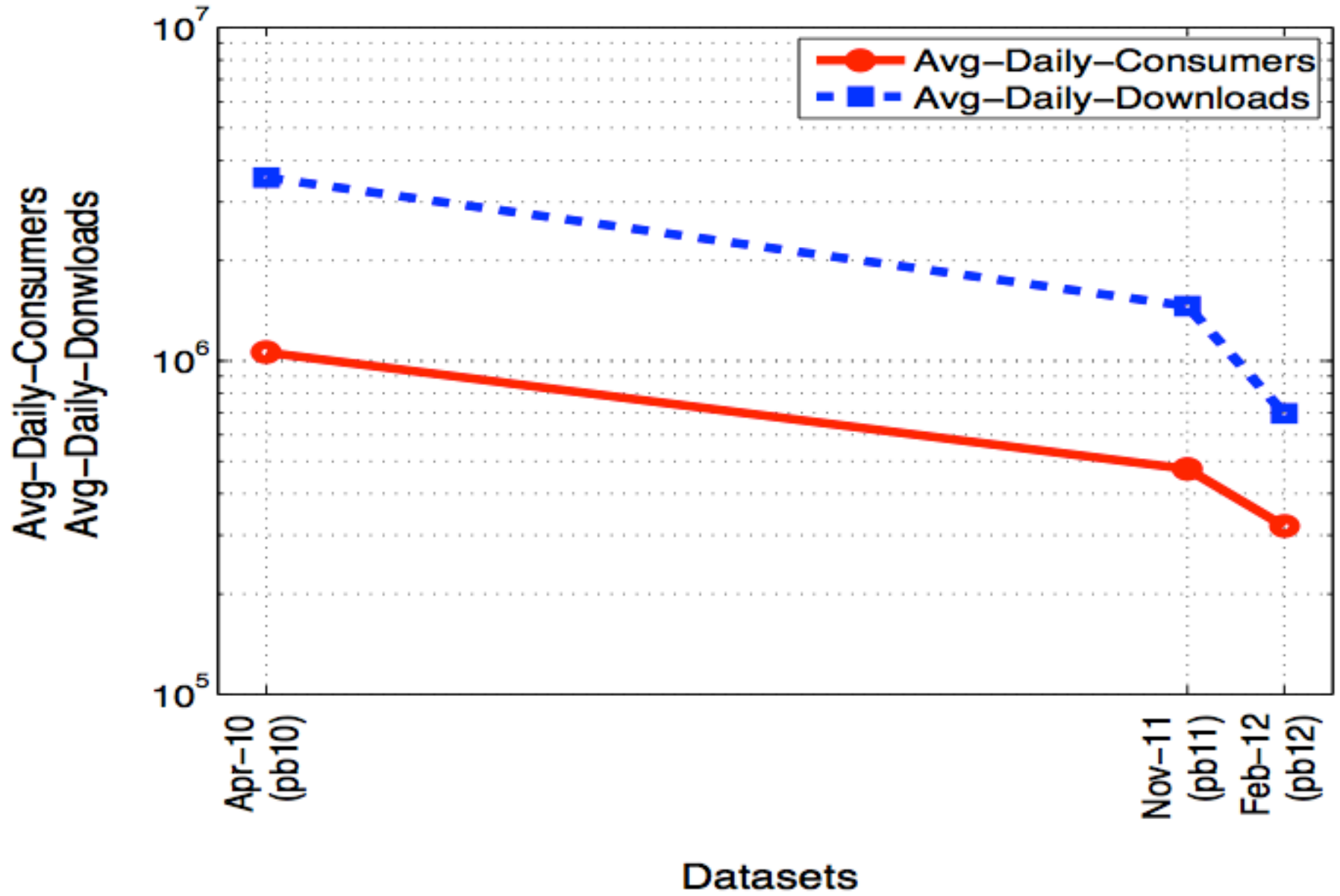


Figure 1: Histogram: Given an IP address, how many blacklisted domains use that IP address as a name server?



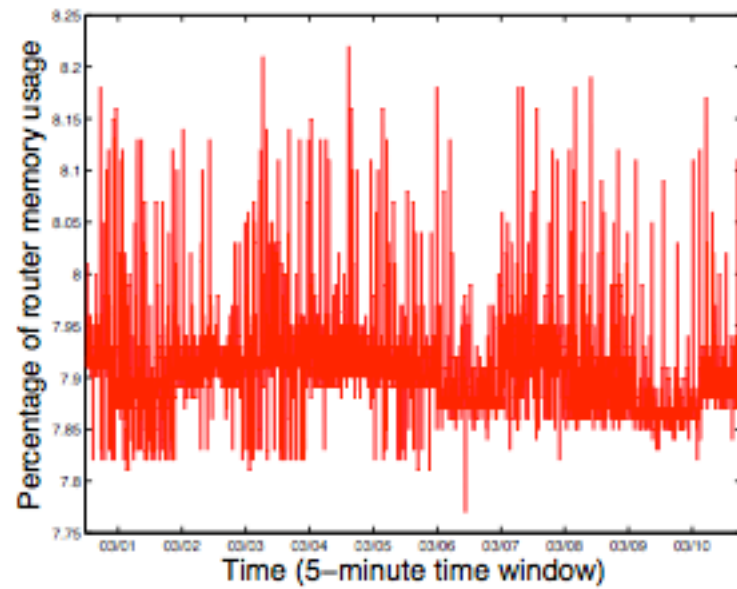
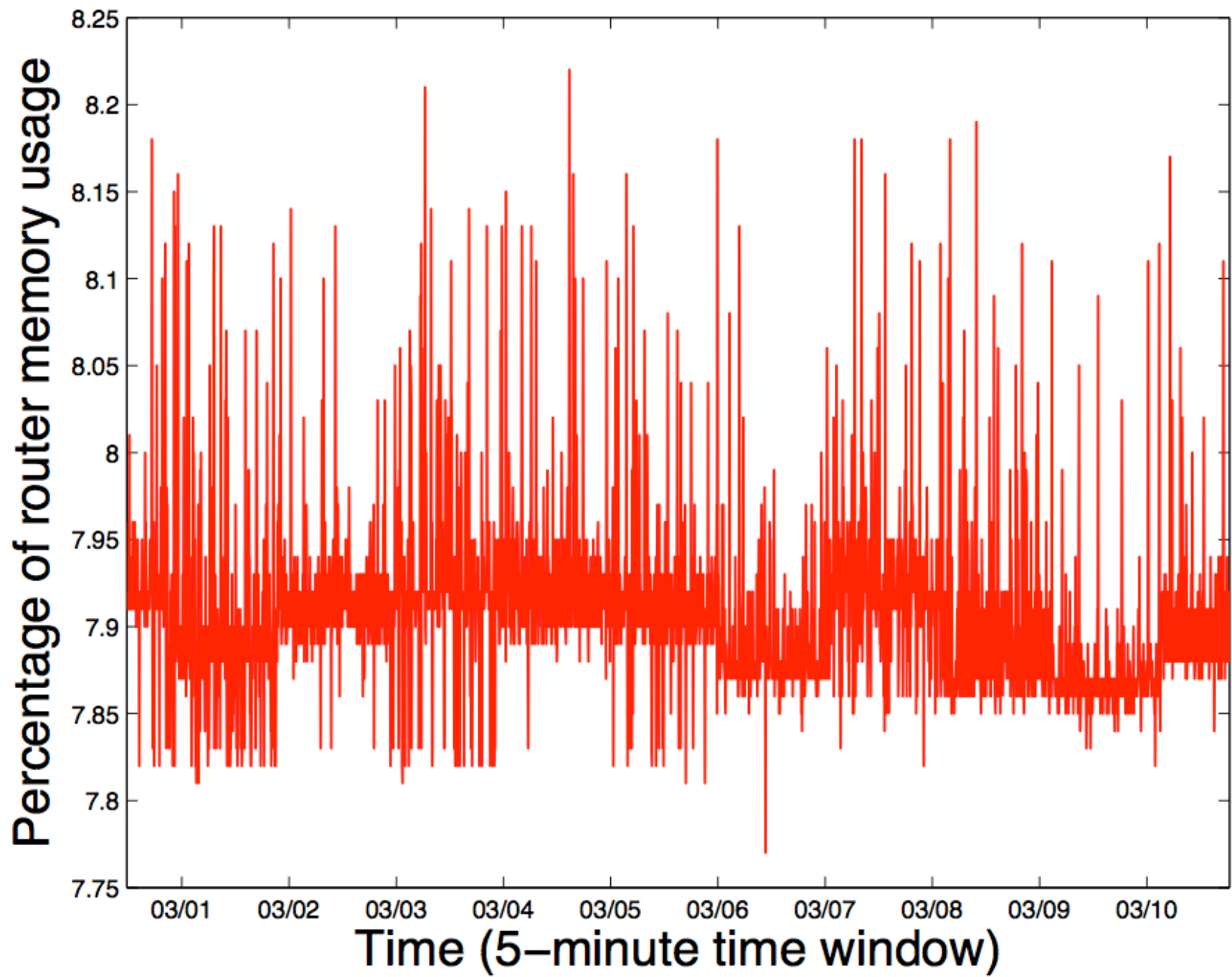
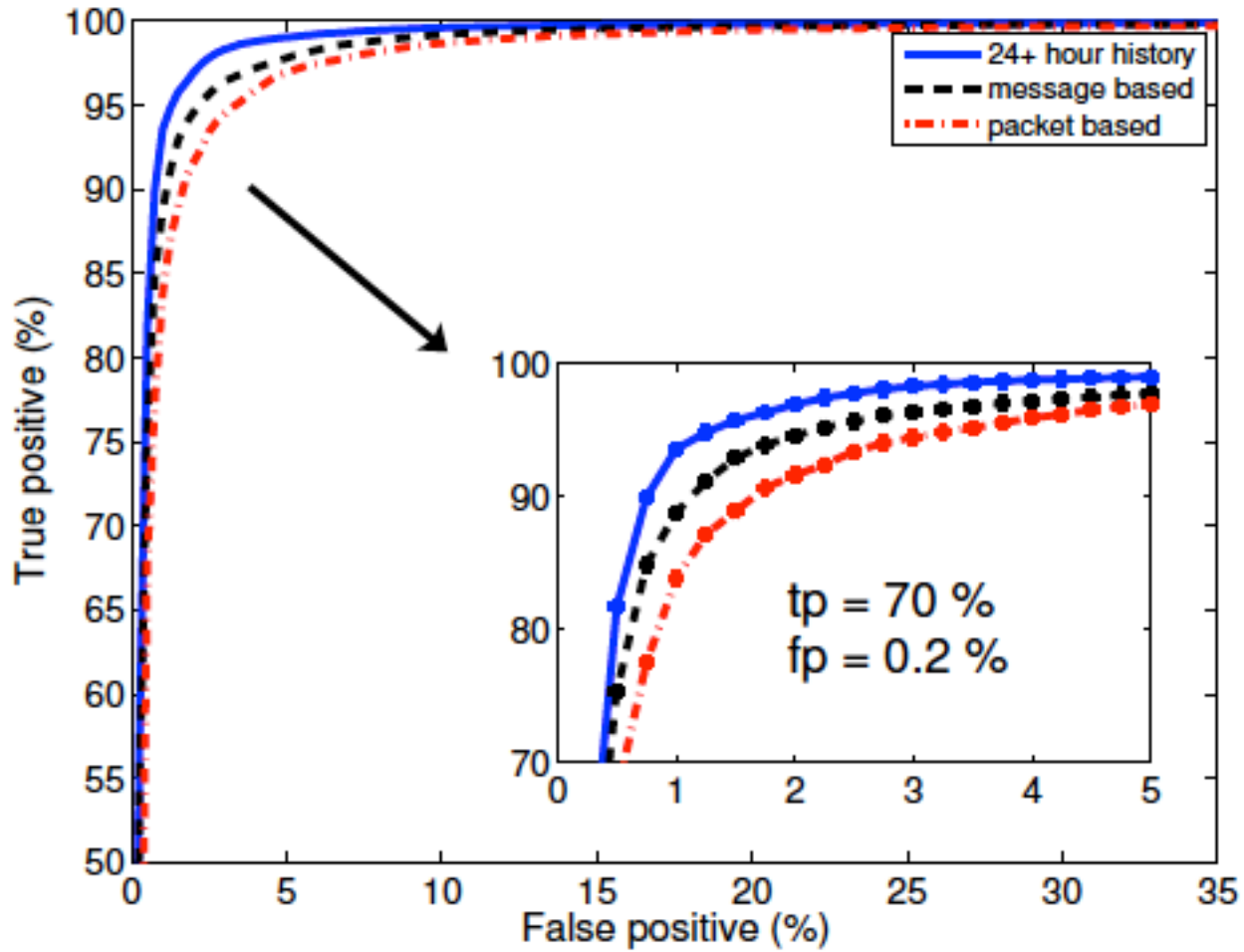


Figure 6: Total memory usage of traffic monitoring system.



ROC in SNARE

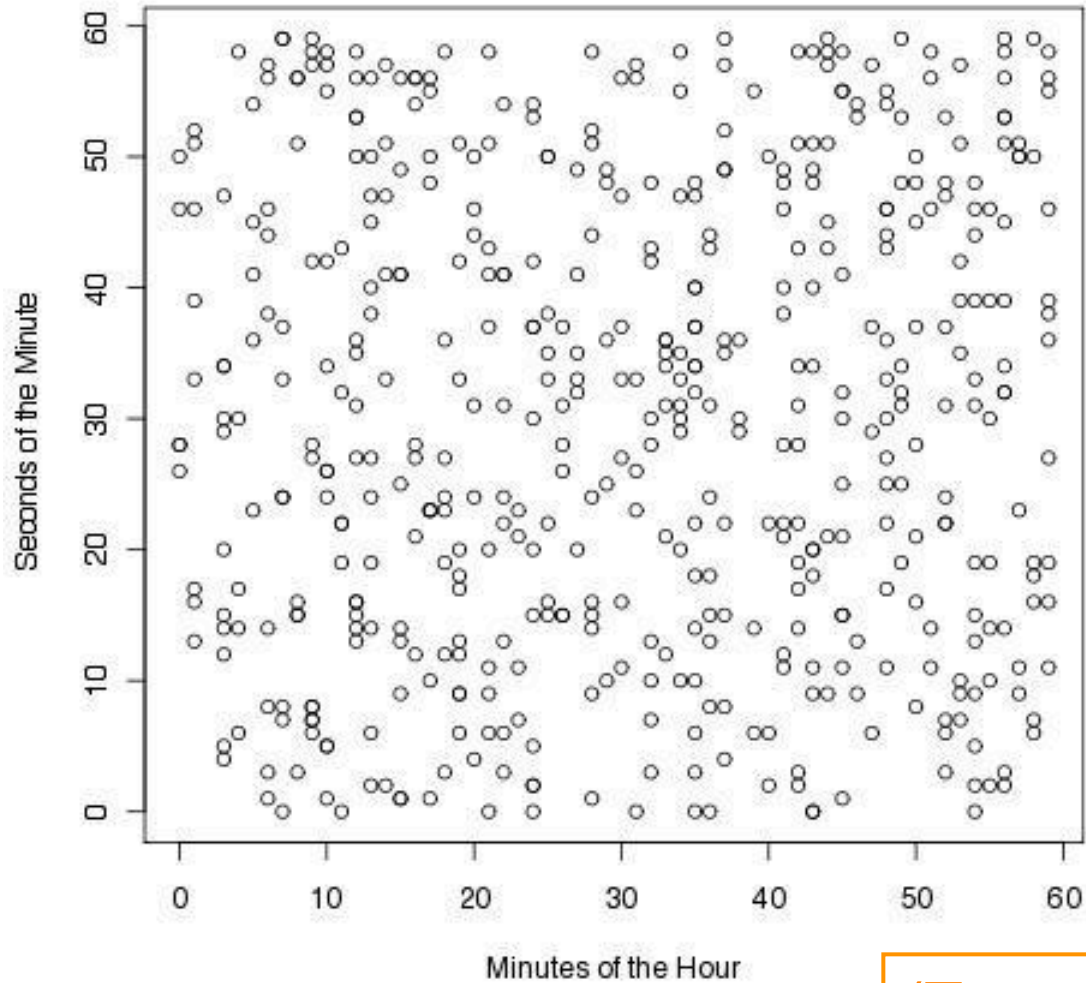


Statistical Highlights for 2nd Quarter 2013

	July	August	September
Number of unique phishing websites detected	49,480	48,758	45,115
Number of unique phishing e-mail reports (campaigns) received by APWG from consumers	61,453	61,792	56,767
Number of brands targeted by phishing campaigns	390	400	379
Country hosting the most phishing websites	USA	USA	USA
Contain some form of target name in URL	35.24%	73.51%	56.22%
No hostname; just IP address	0.15%	3.20%	1.73%
Percentage of sites not using port 80	0.04%	0.32%	0.86%

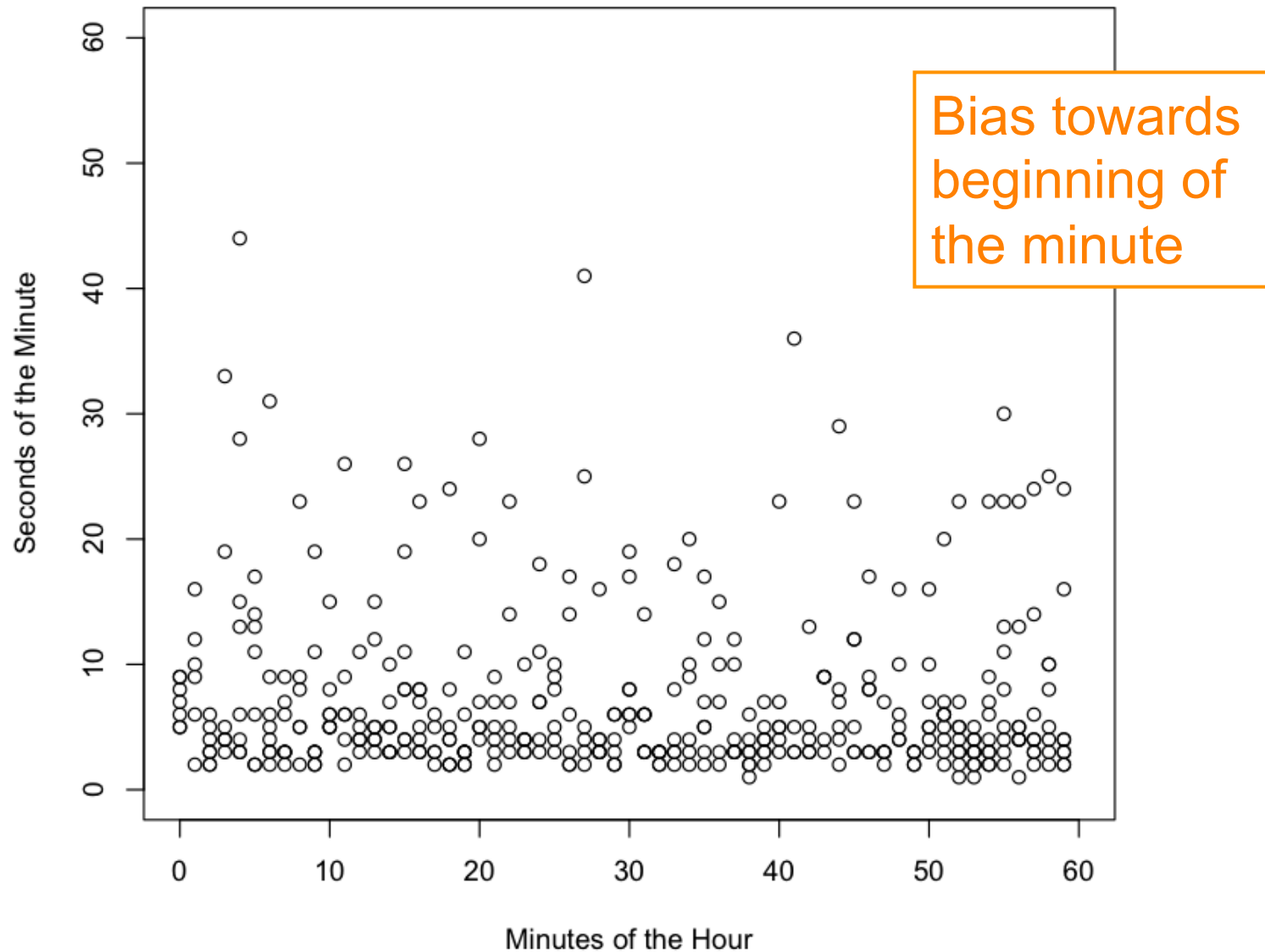
Expected Uniform Posting Pattern

$T \bmod 60$

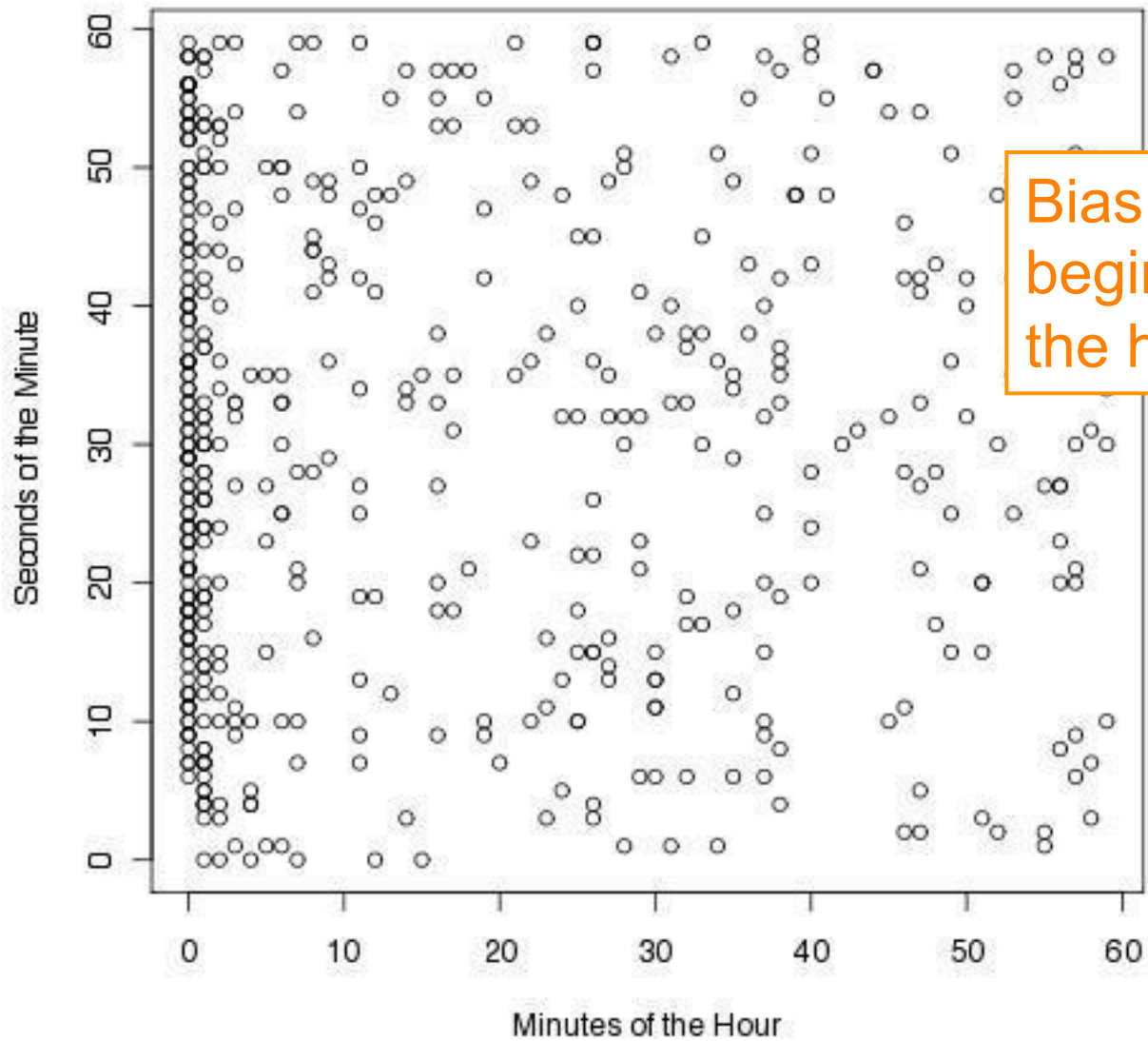


$(T \bmod 3600) / 60$

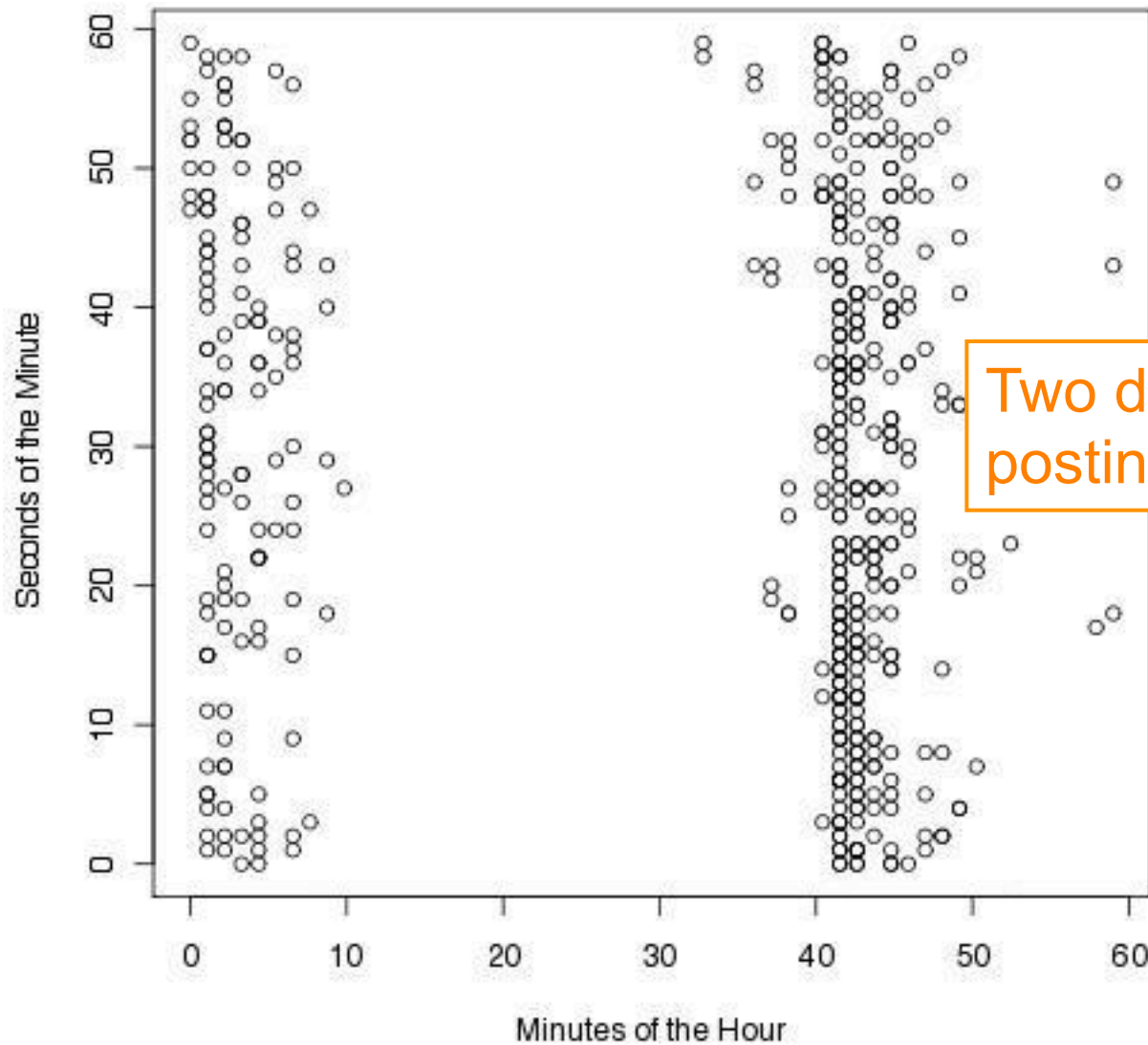
Non-Uniform Posting Pattern



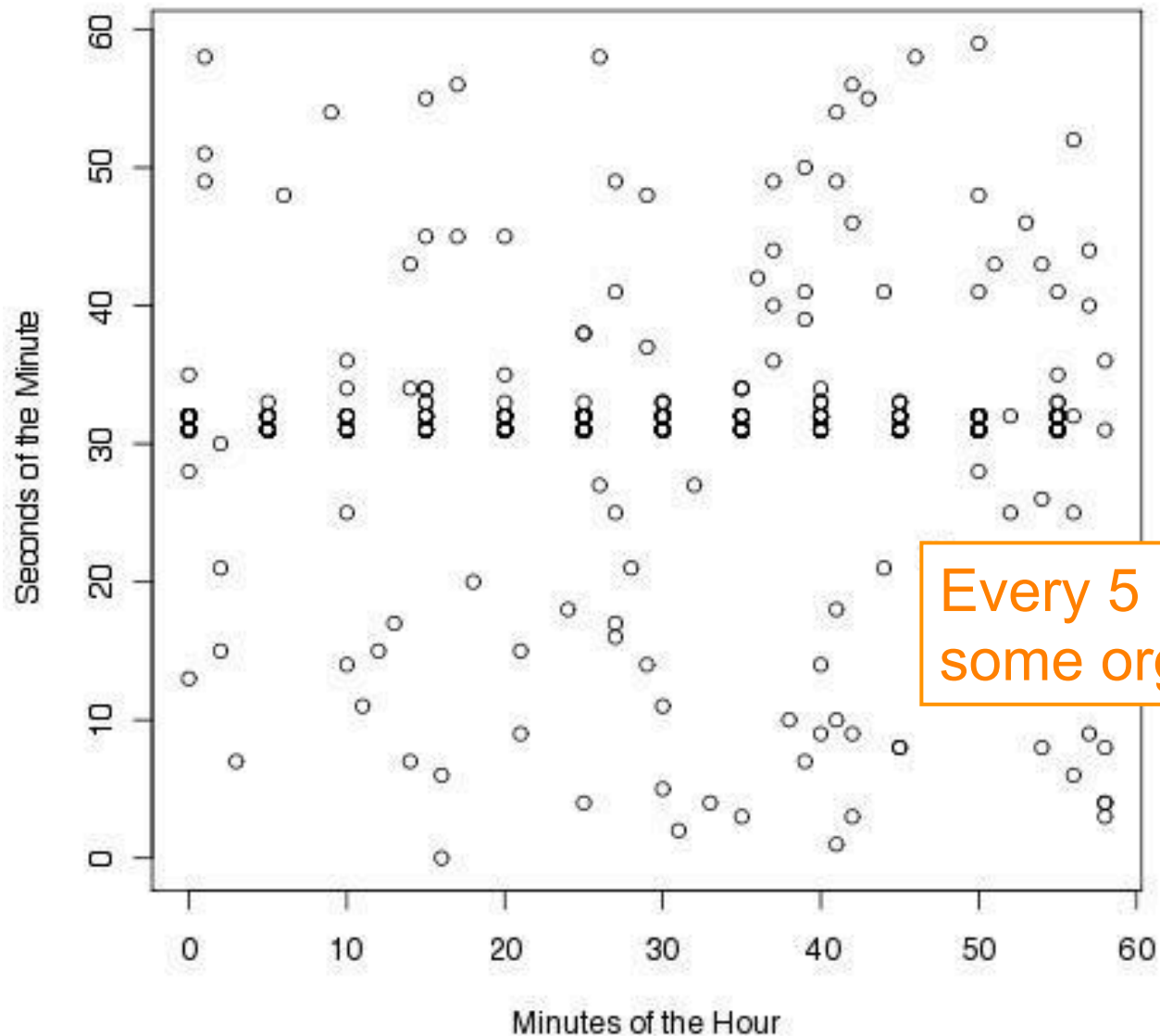
Non-Uniform Posting Pattern



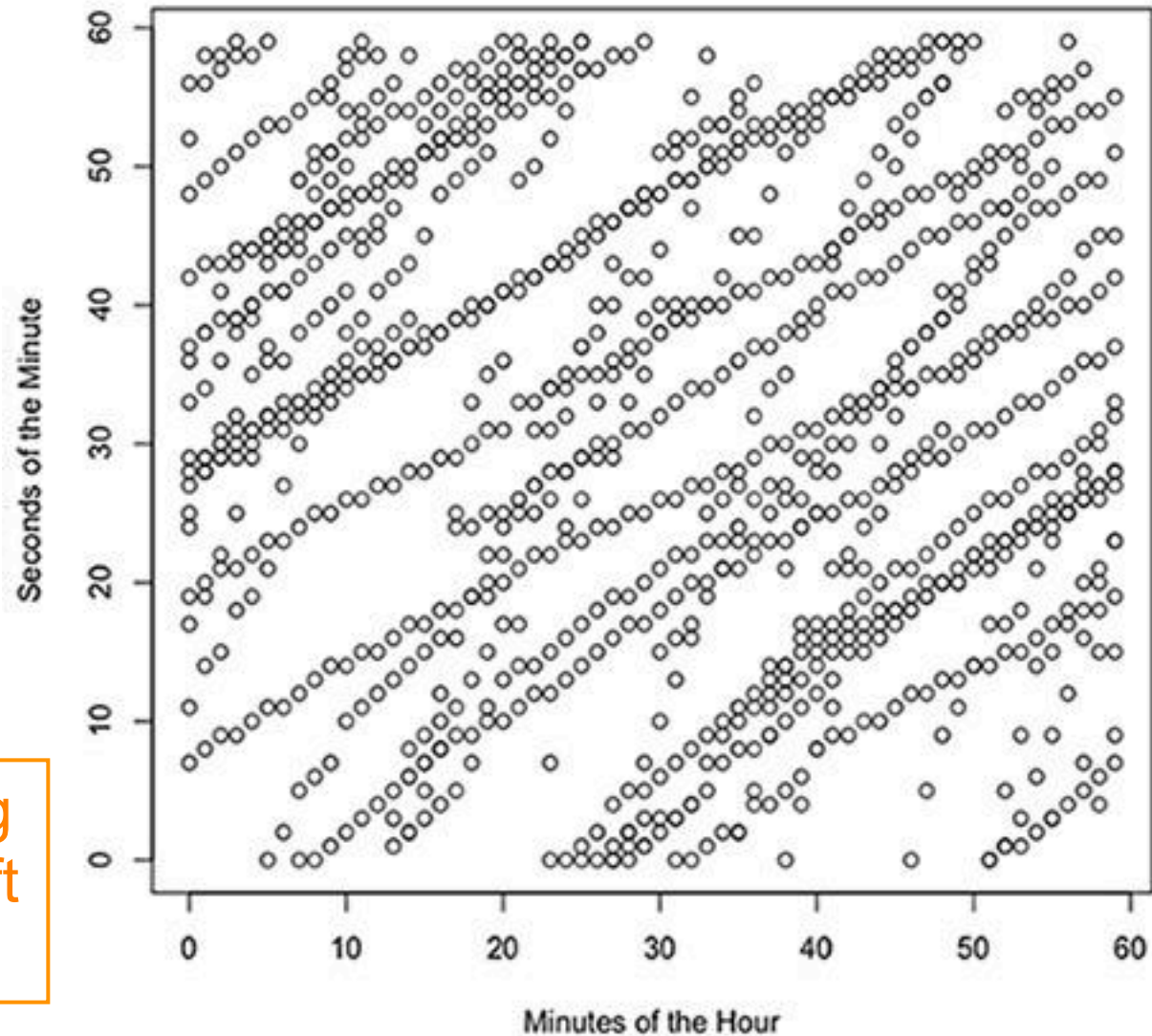
Non-Uniform Posting Pattern



Non-Uniform Posting Pattern



Hyper-Uniform Posting Pattern



Steady posting
with phase drift
- *too* uniform

Canadian Pharmacy

#1 Internet Online Drugstore



Products list

VIAGRA

For Order more than \$300:
12 VIAGRA PILLS
FREE

For other Orders:
4 VIAGRA PILLS

★ Bestsellers

- Male Enhancement
- Men's Health
- SALES - 20% OFF**
- Female Enhancement
- Weight Loss
- Gums **New!**
- Body-Building
- Hypnotherapy

Viagra + Cialis **69⁹⁹\$**

10 x Viagra 100 mg
10 x Cialis 20 mg

[ORDER NOW](#)

Penis Growth Pack **179⁹⁵\$**

Penis Growth Pills 1 bottle x 60 caps
Penis Growth Oil 1 tube x 2oz

[ORDER NOW](#)

Viagra **225⁶¹\$**

120 pills 100 mg
+4 Free pills

[ORDER NOW](#)

Search by name: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z S

Search:

Today's Bestsellers

Viagra
Our price **\$1.21**

[More info](#) [Add to cart](#)

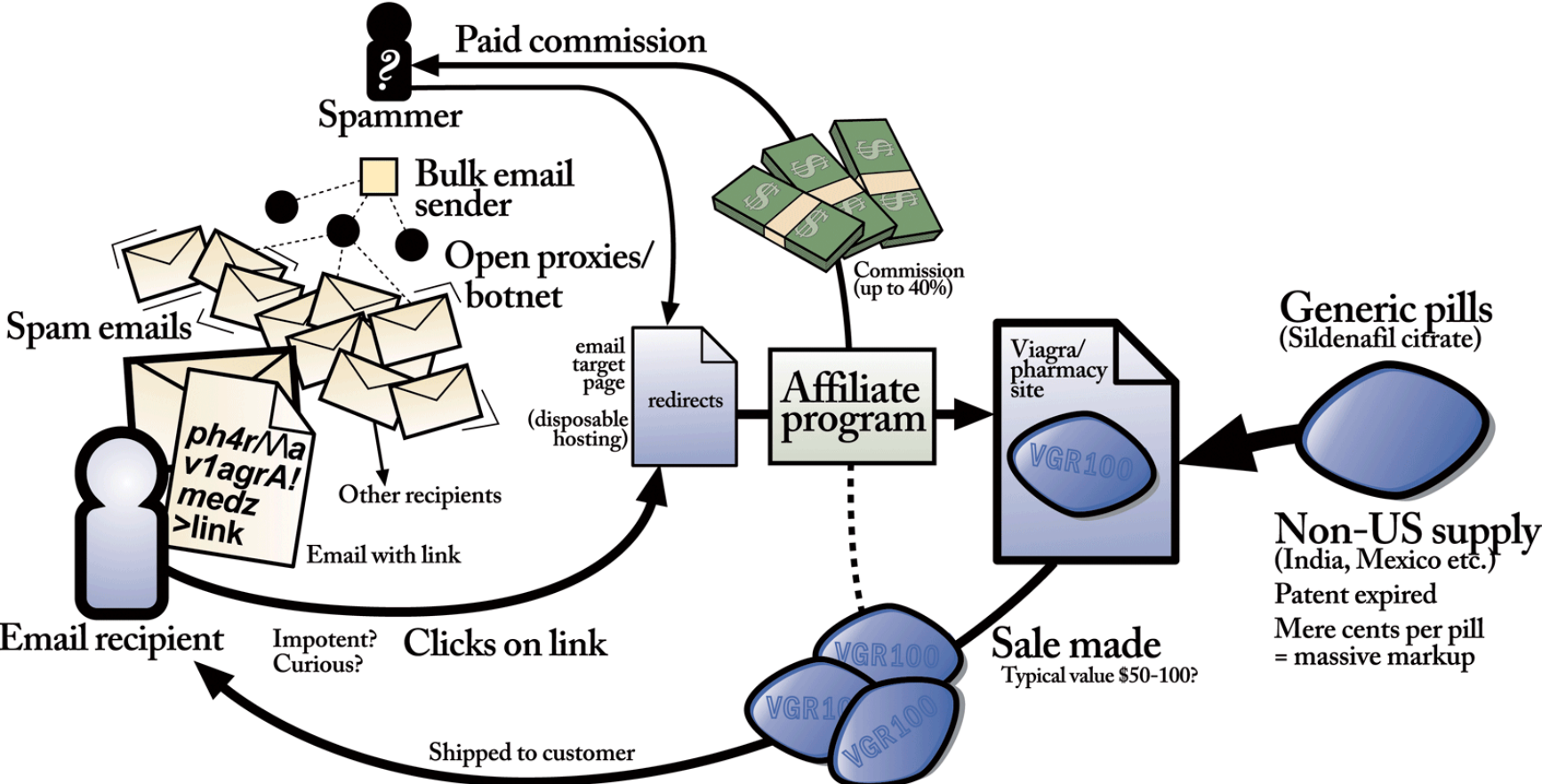
Cialis
Our price **\$2.18**

[More info](#) [Add to cart](#)

Viagra Professional
Our price **\$3.73**

[More info](#) [Add to cart](#)

Anatomy of a modern Pharma spam campaign



Courtesy Stuart Brown
modernlifeisrubbish.co.uk



We drive cash your way.

[Site map](#)[Server Time: 2011-11-10 16:10](#)[Tickets](#)[Logout](#)

Affiliate ID: **17788**

Balance:

\$0.00

Payments:

\$0.00 Sent

\$0.00 Hold

Stats

Creatives

Settings

Payments

Advanced

Info

Contacts

Mark 430 mark_affiliate

Vanessa 644 vanessa-affiliate

Sandra 356 sandr

Mary Ryan 608 mary_ryan_affiliate

Liza 634 liza_affiliate

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Frequently Asked Questions

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[What are your payment plans?](#)

[How do you know that this is "my" customer?](#)

[What should I do to join you?](#)

[What do you sell?](#)

[What if I don't live in the USA? May I become your affiliate?](#)

[Where can I monitor the statistics of my site?](#)

[When do you ship the orders?](#)

[Can I advertise a specific product, not the whole pharmacy?](#)

[What is the commission on the refill orders?](#)

[I need help configuring my templates what do I do?](#)

[I lost my password, what do I do?](#)

[Are you accepting call centers?](#)

How do you pay?

We pay every week on Thursday with a 2 weeks' holdback. \$50 minimum on stormpay and wires. If you require larger amounts sent at one time you can set the minimum yourself.

Payment by request is now available. Effective from 07.17.2006

Our loyal affiliates now have the chance to minimize the hold period and to get the money when they need it. Even though it will be handled individually in every case the guidelines are simple.

You should have the steady sales record for the last 3 months (that is your daily average should be at least 3 sales for the above mentioned period) and your traffic source can be easily tracked. This will not apply to the commission earned during special promotions and we won't be able to pay to PayPal earlier than scheduled. You are welcome to use Bank Wire, Epass, Egold, Webmoney and

What are your payment plans?

Our affiliate program offers 3 levels of RevShare.

You can choose to receive 30, 40 or 50% from sale. Prices of products increase with each new level of Revshare. You can set ANY price provided that it is higher than the base price (price of product at 30%).

For example, viagra 100mg x 10 pills, has the following prices:

\$29.95 (30%)

\$35.95 (40%)

\$49.95 (50%)

- You cannot set the price lower than \$29.95
- Any price between \$29.95 and \$35.95 will give you Revshare of 30%
- Any price between \$35.95 and \$49.95 will give you Revshare of 40%
- Any price higher than \$49.95 will give you Revshare of 50%

To change the price enter the new figure in "Your Price" window and click on the arrow next to it. The forecast of price per pill and your commission will be shown. Click on the Save button at the bottom of the screen to enable the new prices. (If you don't click on the arrow the "Save" button won't work)

You can also change all prices by setting a needed percentage in "Value", (in the upper part of interface), or by coping the prices from another Tracking id.

Please note that some products may have only one or two levels of Revshare.

How do you know that this is "my" customer?

First, your affiliate id is clearly visible in the site's url. Our program leaves a cookie at a customer's computer to identify him at the return. And finally the customer creates an account at our site. He is sure to remember his original login name as we offer great bonuses for the returning customers.

Are Bots & Spam the New Black Gold?

Storm worm 'making millions a day'

Compromised machines sending out highly profitable spam, says IBM security strategist

Clive Akass, Personal Computer World 11 Feb 2008

The people behind the Storm worm are making millions of pounds a day by using it to generate revenue, according to IBM's principal web security strategist.

Joshua Corman, of IBM Internet Security Systems, said that in the past it had been assumed that web security attacks were essential ego driven.



How can we **measure** this? Seemingly only knowable by the spammers themselves.

- Spam finance elements:
 - Retail-cost-to-send vs. Profit-per-response
 - Key missing element: spams-needed-per-response, i.e., *conversion rate*



Products list

VIAGRA

For Order more than \$300:
12 VIAGRA PILLS
FREE

For other Orders:
4 VIAGRA PILLS



- ★ **Bestsellers**
- Male Enhancement
- Men's Health
- **SALES - 20% OFF**
- Female Enhancement
- Weight Loss
- Gums **New!**
- Body-Building
- Hypnotherapy

Viagra + Cialis **69⁹⁹\$**



10 x Viagra
 100 mg
 10 x Cialis
 20 mg

[ORDER NOW](#)

Penis Growth Pack **179⁹⁵\$**



Penis Growth Pills
 1 bottle x 60 caps
 Penis Growth Oil
 1 tube x 2oz

[ORDER NOW](#)

Viagra **225⁶¹\$**



120 pills
 100 mg
 +4 Free pills

[ORDER NOW](#)

Search by name: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [S](#)


Search: 

Today's Bestsellers

 **Viagra**

Our price **\$1.21**

[More info](#) [Add to cart](#)

 **Cialis**

Our price **\$2.18**

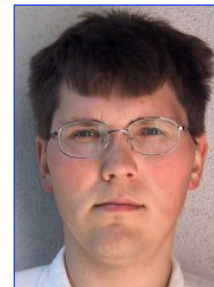
[More info](#) [Add to cart](#)

 **Viagra Professional**

Our price **\$3.73**

[More info](#) [Add to cart](#)





Kirill Levchenko

klevchen@cs.ucsd.edu

I am a project scientist with the [Systems and Networking](#) group in the Computer Science department at the University of California, San Diego. My current research



Bot master

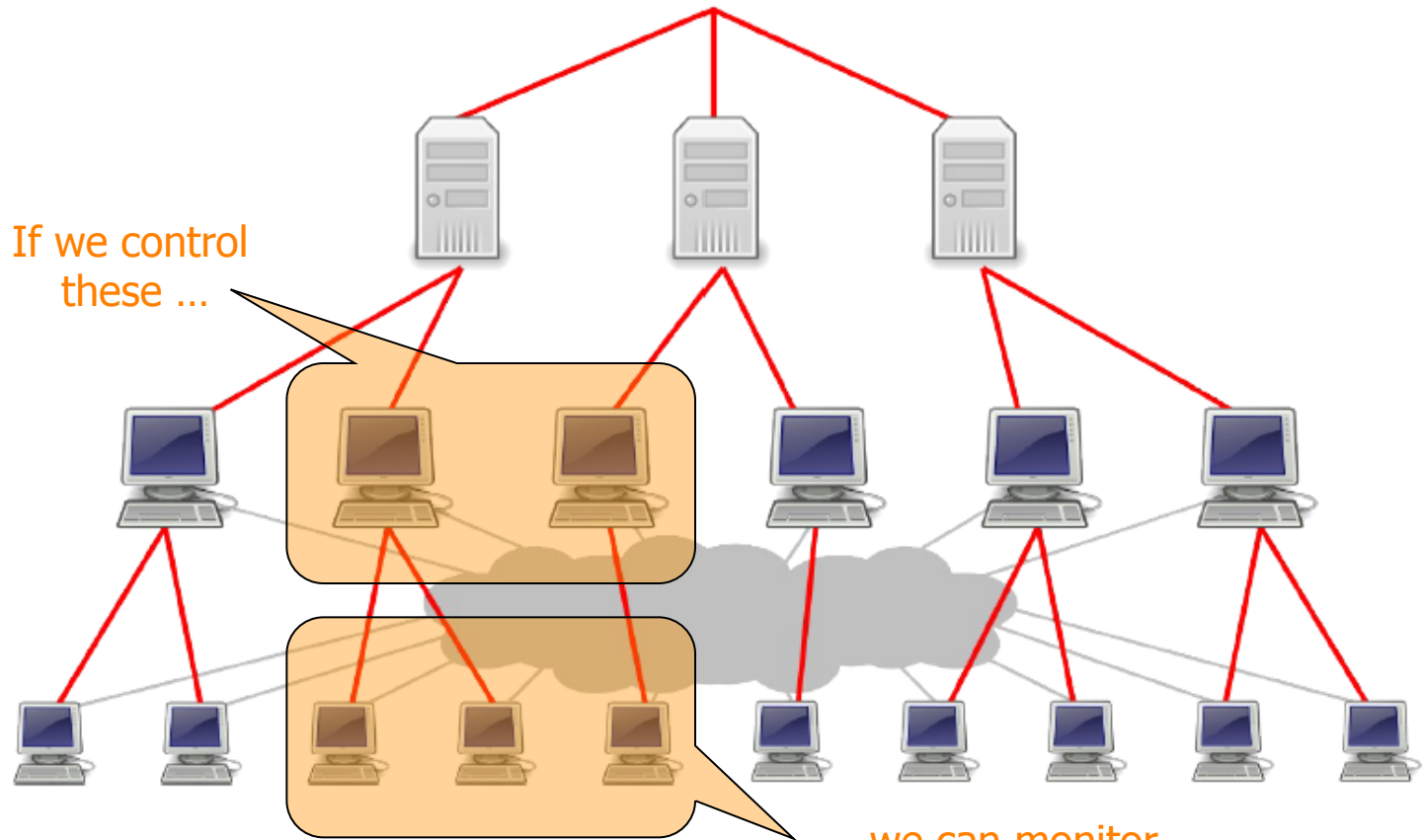
HTTP proxies

If we control these ...

Proxy bots

Overnet

Worker bots



... we can monitor these



Bot master

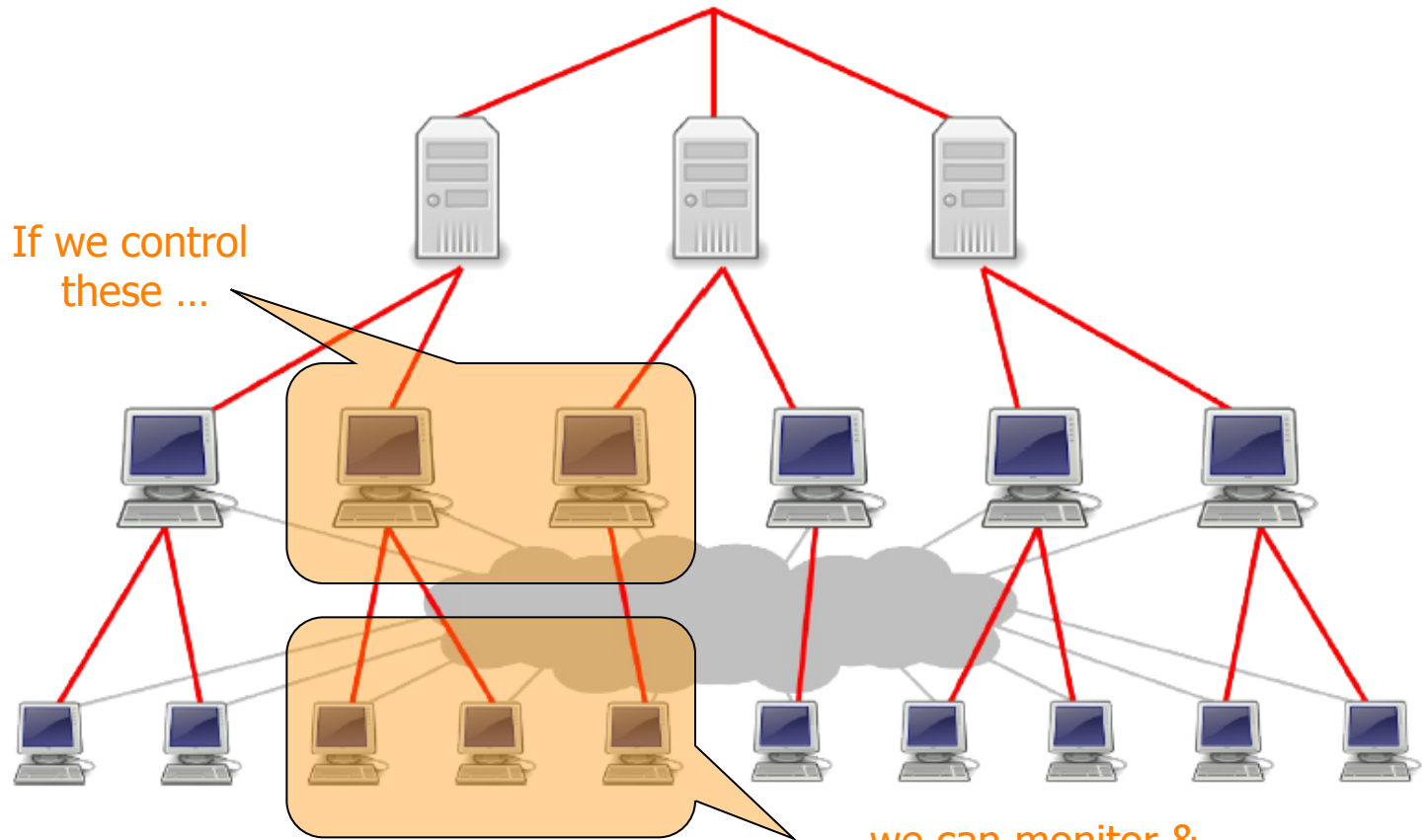
HTTP proxies

If we control these ...

Proxy bots

Overnet

Worker bots



... we can monitor & **influence** these

