



Helping You Piece IT Together

An Overview Of SPAM

Introduction

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- About BH Consulting
- What is SPAM?
- The Impact of SPAM
- Legal Solutions
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About BH Consulting

- Founded in 2004
- Independent Consulting Firm
- Address lack of vendor neutral advice

- Marry Technical Know How & Business Knowledge
- Make IT a business enabler
- Provide Industry Best Practises and Real World Experience
- Strategic Partners



What is SPAM?

- SPAM is Unsolicited or bulk electronic messages used to promote material that is very often not wanted or applicable to the recipient.
- The content of SPAM can also be immoral, illegal and offensive
- SPAM is often referred to as Unsolicited Bulk Mail (UBM), Excessive Multi-Posting (EMP), Unsolicited Commercial email (UCE), spam mail, bulk email or just junk mail.

SPAM or marketing?

- When exactly does an electronic message become SPAM?
- According to Mail Abuse Prevention System
 - An electronic message is "spam" IF: (1) the recipient's personal identity and context are irrelevant because the message is equally applicable to many other potential recipients; AND (2) the recipient has not verifiably granted deliberate, explicit, and still-revocable permission for it to be sent; AND (3) the transmission and reception of the message appears to the recipient to give a disproportionate benefit to the sender.
<http://www.mailabuse.org>

What's in a Name?

- Spam is a tinned meat product so what's the connection?
 - Legend has it that the term SPAM comes from a comedy sketch in the British TV comedy series, Monty Python's Flying Circus. The sketch shows a waitress in a restaurant listing the various menu dishes containing spam to a customer, while in the background a group of Vikings begin incessantly chanting the words "spam,spam,spam .. " until the waitress can no longer be heard.

In the early days of the Internet, SPAM became the reference for people who excessively posted items into message boards and newsgroups. The term subsequently became used for unsolicited emails and bulk emails

The First SPAM Message?

- 3rd May 1978
- Gary Thuerk-
salesman for Digital
- Using Arpanet
- Sent to 593 accounts
numerous times due
to restrictions of
email account

DIGITAL WILL BE GIVING A PRODUCT PRESENTAT
DECSYSTEM-20 FAMILY; THE DECSYSTEM-2020, 2
DECSYSTEM-20 FAMILY OF COMPUTERS HAS EVOLV
AND THE DECSYSTEM-10 <PDP-10> COMPUTER ARC
AND 2020T OFFER FULL ARPANET SUPPORT UNDER
THE DECSYSTEM-2060 IS AN UPWARD EXTENSION
AND 2050 FAMILY. THE DECSYSTEM-2020 IS A N
DECSYSTEM-20 FAMILY AND FULLY SOFTWARE COM
DECSYSTEM-20 MODELS.

WE INVITE YOU TO COME SEE THE 2020 AND HEA
AT THE TWO PRODUCT PRESENTATIONS WE WILL B
MONTH. THE LOCATIONS WILL BE:

TUESDAY, MAY 9, 1978 - 2 PM
HYATT HOUSE (NEAR THE L
LOS ANGELES, CA

THURSDAY, MAY 11, 1978 - 2
DUNFEY'S ROYAL COACH
SAN MATEO, CA

The first Internet SPAM?



- Martha Siegel and Laurence Canter
Lawyers from Phoenix, 12 April 1994
- “Advertising” their immigration advice service

How do SPAMmers Operate?

- Using ISP services in countries with little or no controls (ASIA etc.)
- Unprotected email servers
- Botnets – Programs installed on unprotected systems enabling remote use – zombies
- Fraudulent accounts, setting up DSL accounts using stolen credit cards

Why Me?

- Posting a reply to a newsgroup on an Internet website.
- Spammers use automated “harvesting” programs that crawl through Internet looking for email addresses.
- By subscribing to email lists or filling in forms on websites that do not have proper privacy policies in place.
- Automated programs guess the email addresses recipient.
- Market where spammers exchange and sell their list of email addresses to each other
- By unsubscribing to SPAM emails

How do I stop it?

- Never Reply to a SPAM email
- Never open a SPAM email, especially if you use Outlook or Outlook express.
- Never post your real email address online. Use “myname at somewhere dot ie”
- Be careful filling out online forms
- Filtering solutions to drop SPAM.

Impact of SPAM

➤ Technical issues

- Unwanted load on network, communication resources and servers
- Takes up space on back up tapes

➤ Productivity issues

- Time wasted staff deleting SPAM
- Legitimate email deleted
- Encouraging staff “cyber loafing”, i.e. following links in emails

Impact of SPAM

- SPAM became an IT security problem
- The Three pillars of IT Security
 - Confidentiality, Integrity and Availability
 - SPAM containing viruses
 - SPAM containing Trojan software
 - SPAM containing Spyware
 - Issues regarding email servers and networks
 - Botnets/RATWARE
 - Compromises your network
 - Blacklisting your email system

Impact of SPAM

➤ Legal Issues

- Company negligence in their duty of care to staff
- Liability regarding negligence to third parties
- Trafficking of illegal content
- Are you sending SPAM?
- Identity Fraud (Phishing)

SPAM & Organised Crime

- Very little spam is genuinely trying to sell anything
- Rather used to
 - Promote Bogus fake products
 - Defraud people (419, Phishing)
 - Circulates computer viruses
 - Spyware
 - Trojans such as RATS
- Connected to other illegal activities
- Buying and selling Botnets

What Motivates them?

➤ Money !!

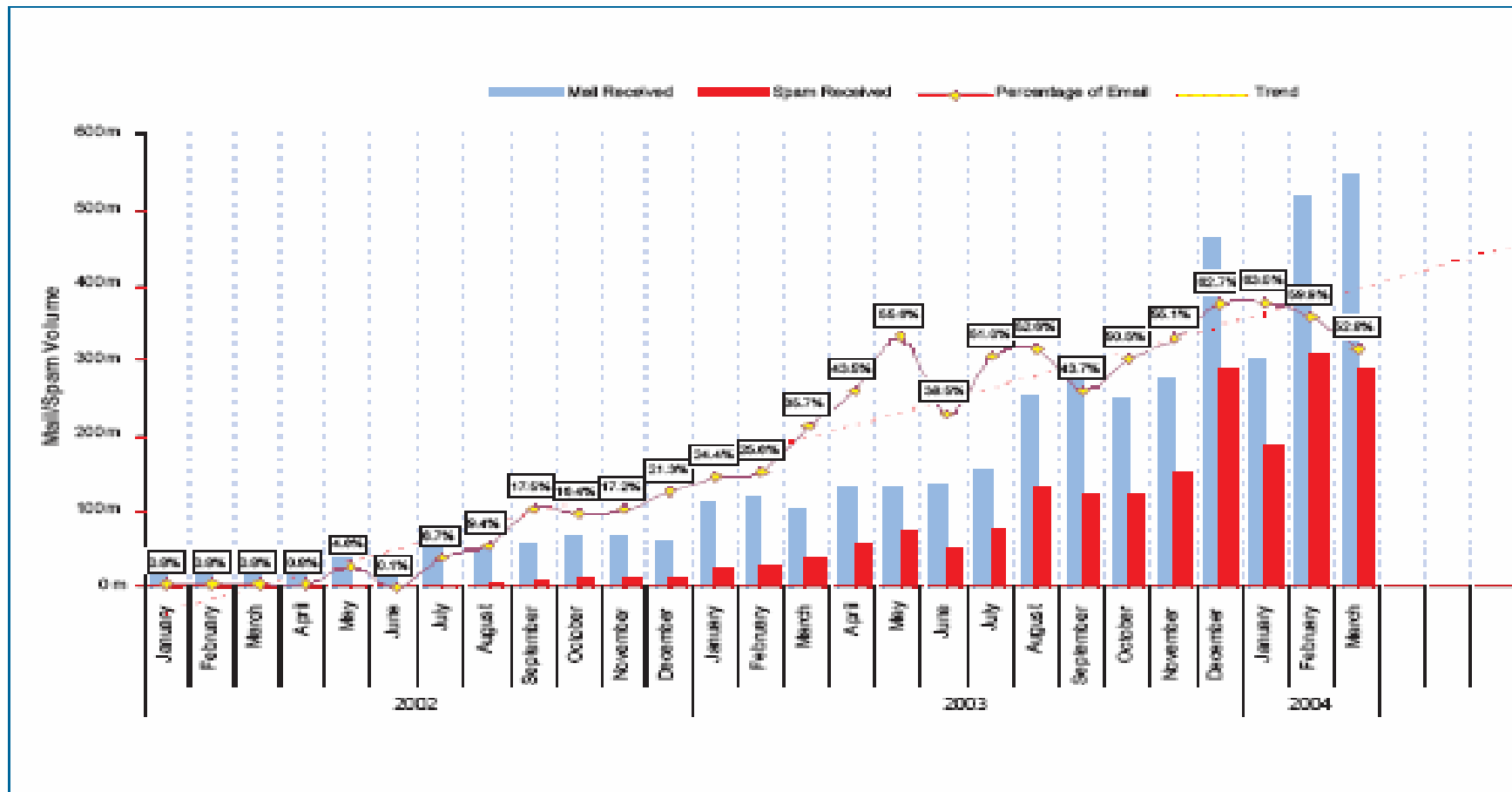
- % on items sold
- SPAMmer for hire – US\$250 per 1m emails sent
- Selling addresses – CDs containing databases with millions of email addresses are selling for US\$10
- Selling their tools, e.g. RATWARE

How bad is the problem?

- Recent Gartner study estimates 85% of global email traffic is now SPAM

Country	%
US	67.0
China	8.1
UK	5.7
Sth Korea	5.0
Canada	4.4
Brazil	3.8
Italy	1.8
Mexico	1.6
Germany	1.3
Spain	1.2

SPAM To Mail ratio



Source Messagelabs



Top 10 Worst SPAM Countries

1.	<u>United States</u>	24352
2.	<u>China</u>	6563
3.	<u>South Korea</u>	3764
4.	<u>Russia</u>	1755
5.	<u>Brazil</u>	1736
6.	<u>Taiwan</u>	1427
7.	<u>Canada</u>	1308
8.	<u>Japan</u>	1309
9.	<u>Argentina</u>	9910
10.	<u>United Kingdom</u>	92

Source Messagelabs

Top 10 Worst SPAM ISPs

1.	<u>mci.Com</u>	2102
2.	<u>kornet.net</u>	126
3.	<u>sbc.com</u>	1184
4.	<u>comcast.net</u>	995
5.	<u>crc.net.cn</u>	796
6.	<u>xo.com</u>	737
7.	<u>verizon.net</u>	628
8.	<u>level3.net</u>	569
9.	<u>interbusiness.it</u>	5510
10.	<u>above.net</u>	47

Top 10 Worst SPAMmers

1. [Alan Ralsky](#) **United States**
2. [Michael Lindsay / iMedia Networks](#) **United States**
3. [Andrew Westmoreland](#) **United States**
4. [Ryan Pitylak / Steve Goudreault / Mart Trotter](#) **United States**
5. [Ruslan Ibragimov / send-safe.com](#) **Russia**
6. [Ivo Ottavio Reali Camargo](#) **Brazil**
7. [Robert Soloway - Newport Internet Marketing](#) **United States**
8. [Yambo Financials](#) **Ukraine**
9. [Alexey Panov - ckync.com](#) **Russia**
10. [John Grandinetti / Broadvision Group](#) **United States**

Acknowledgement

- Information in previous three slides courtesy of The SPAMHaus Project
 - www.spamhaus.org
 - Spamhaus tracks the Internet's Spammers, Spam Gangs and Spam Services, provides dependable realtime anti-spam protection for Internet networks, and works with Law Enforcement to identify and pursue spammers worldwide.
 - Spamhaus flags these spammers as a priority for Law Enforcement Agencies.

Solutions

- At the moment there are two primary ways to combat SPAM
 - Legal
 - Technical

- Both focus on the end user/company

Legal Response

- **Civil action**
 - Sue SPAMers to make good their losses
 - Use existing laws
 - Onus on impacted person/company to make their case
- **Breach of Contract**
 - ISPs terms and conditions of use
- **Use of trademark & Copyright**
 - Pfizer, Rolex

Irish Legislation

Directive 2002/58/EC, implemented as:

European Communities (Electronic
Communications Networks and Services)
(Data Protection and Privacy) Regulations
2003
(SI 535/2003)

in force 6 November 2003

Irish Legislation

- EU Data Protection Directives and local enactments
- Criminal Damage Act, 1991
- Child Trafficking and Pornography Act, 1998
- Non-Fatal Offences Against the Person Act, 1997

Irish Legislation

- Copyright and Related Rights Act, 2000
- Computer Misuse Act 1990
- Regulation of Investigatory Powers Act 2000 & Lawful Business Practice Regulations

- Not a ban on all SPAM
 - Individual subscribers may not be sent spam without their consent
 - Companies can object, and if they do, they may not be sent spam
 - Individual non-subscribers have no explicit rights

Data Protection and Privacy

- Only marketing e-mails are caught, and political parties have an exemption
- Only Applies to SPAM sourced within the Republic of Ireland
- Applies to unsolicited electronic communications
 - Mentions SMS/MMS/e-mail or fax
 - Will it apply to other means of communications?
E.g. Instant messaging?

Data Protection and Privacy

- National “Opt Out” Register –Personal
- National “Opt Out” Register –Company
- Automatic Dialing Machines –SPAM fax
- SPAM text messages SMS
- Companies can SPAM customers
- Covers storage of “cookies”

Who can SPAM you?

- Anyone can SPAM you at your work address
- Suppliers to your personal address
- Others by prior consent

Penalties

- Penalties of up to €3,000 per incident, i.e. per email
- There is no provision for prison
- Civil action by anyone who suffers “loss and damage”

National Opt out Register

- Register for people who do receive unsolicited communications
- An Post for post
- COMREG
- REGTEL

Reporting SMS SPAM

- O2: Forward to 50455
- Vodafone: Forward to 50005
- Meteor: “Dictate” to helpline 1905
- SMS easier to track

Technical Response

- Filtering software at the gateway
 - Using wordlists
 - Identifying known phrases
 - Filtering technologies
- Outsourced filtering
- Blacklists
- Whitelists
- Challenge and respond mechanisms
- Verification of source

Considerations

- Deploying filtering solutions implies monitoring of email content
- EU Human Rights Directive – Privacy
 - Unfair Dismissals/Constructive Dismissal
- Employ Good Acceptable Usage Policies
 - Clearly state emails may be monitored so staff are aware privacy is not assured
 - Detail disciplinary procedure
 - Get staff to sign “understood and read” the policy

Technical Response

- Constant battle
 - The new arms race
- SPAMmers find new ways to get around protections
 - White text on white background
 - Self configuring SMTP engines

Conclusions

- **Technical solutions**
 - Constantly changing
- **Legal Solutions**
 - Effective only within National jurisdictions
 - Ineffective in Global Context
 - Legislation not clear cut and can lead to companies paying lip service or flouting
 - Require Global initiative and co-operation

Conclusions

- It will get worse before it gets better
- We cannot afford to lose the battle
- New technical initiatives will help but may take some time being implemented
 - Caller ID – Microsoft - stop start
 - Sender Authentication
 - Certificate based email

Conclusions

- New avenues for SPAM
 - Instant Messaging – SPIM
 - Voice Over IP - SPIT
 - New technologies = New Threats

- *“We do not expect legislation or well-publicized litigation against spammers to have much impact on volume through 2005/06.”*
 - META Delta End-User advice on SPAM and viruses 6 May 2004 – META Group

Further info

- Can the law can spam?
 - <http://www.spiked-online.com/Articles/0000000CA4BF.htm>
- A Guide to the *European Communities (Data Protection and Privacy in Telecommunications) Regulations, 2002*
 - <http://www.tug.ie/Sectors/tug/tugDoclib4.nsf/wvICS/23C6C731D80351EA80256E6A00521805?OpenDocument>

Further info

- Data Commissioner guide
 - <http://www.dataprivacy.ie/images/SPAMguide.pdf>
- European Union vs. Spam: A Legal Response
 - <http://www.ceas.cc/papers-2004/145.pdf>

Further info

- The European Coalition Against Unsolicited Commercial Email
 - <http://www.euro.cauce.org/en/index.html>
- Anti-Spam Laws Worldwide
 - <http://spamlinks.net/legal.htm>
- International Telecommunications Union
 - <http://www.itu.int/osg/spu/spam/law.html>
- The SPAMHAUS Project
 - <http://www.spamhaus.org/>

Questions ?

