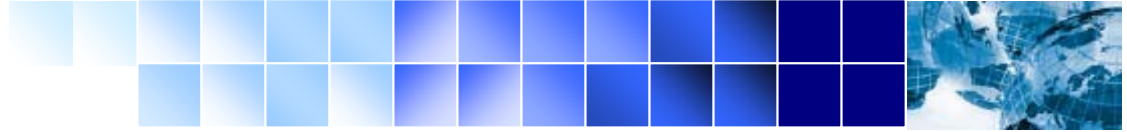## National Computer Board

Anti-Spam Initiative

Devendra Babooa
Business Analyst, NCB
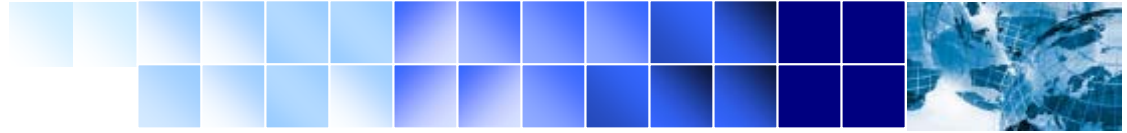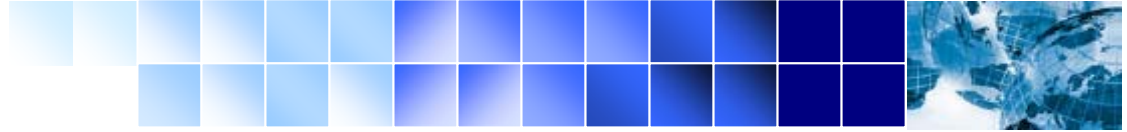**dbabooa@ncb.mu**

9th July 2007

Agenda

- ▶ **What is SPAM?**
- ▶ **Types of Spam**
- ▶ **Spam Evolution**
- ▶ **Scope and Extent**
- ▶ **Spamming in Mauritius**
- ▶ **Spam Related Issues**
- ▶ **Anti-Spam Initiative : Why?**
- ▶ **Anti-Spam Action Plan Recommendations**
- ▶ **Leadership and Monitoring of Action Plan**
- ▶ **Objective Of Public Awareness Campaign**
- ▶ **Anti-Spam Awareness Campaign**
  - ▪ Anti-Spam Slogan
  - ▪ Anti-Spam Awareness Sessions
  - ▪ Anti-Spam Website
  - ▪ Anti-Spam Brochures
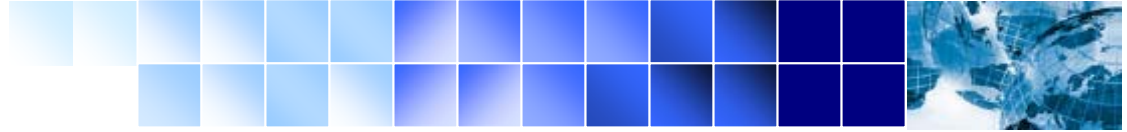 - ▪ Annual Spam Study
- ▶ **Conclusion**

What is SPAM?

- ► **No agreed universal spam definition**
- ► **Confusion on what is spam and not! – end users subscribing to e-newsletters, etc.**
- ► **Definition adopted by the Anti-Spam Committee – inspired by the Australian and European Union definitions**

"Unsolicited communications sent in bulk over an electronic media such as e-mail, mobile (SMS, MMS) and instant messaging services, usually with the objective of marketing products or services"
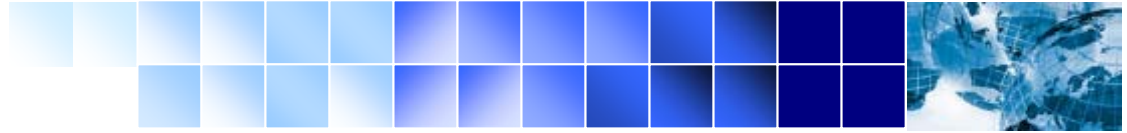
Types of Spam

- **Online Pharmacy spam**
  - Spam promoting generic versions of Viagra, Cialis, Anti-depressants that can be purchased online.
- **Penny Stock spam**
  - Stock hyping spam, encouraging people to buy cheap stocks so that spammers can gain a return on their investment.
- **Porn or sex-dating sites spam**
  - Porn-sites and sex dating sites are often marketed via spam.
- **Pirate Software spam**
  - Pirate software manufactured in the Far East, is often marketed via spam.
- **419 scams**
  - Often called 419 scams after the relevant section of the Criminal Code of Nigeria; These are a form of "Advance Fee Fraud"
  - Usually a plea for help to recover millions of dollars from a bank account in a foreign country.
- **Lottery spam**
  - Similar to the 419 Advance Fee Fraud, these spam will tell you that "You have already won X Million" in order to try to extract transfer fees etc.
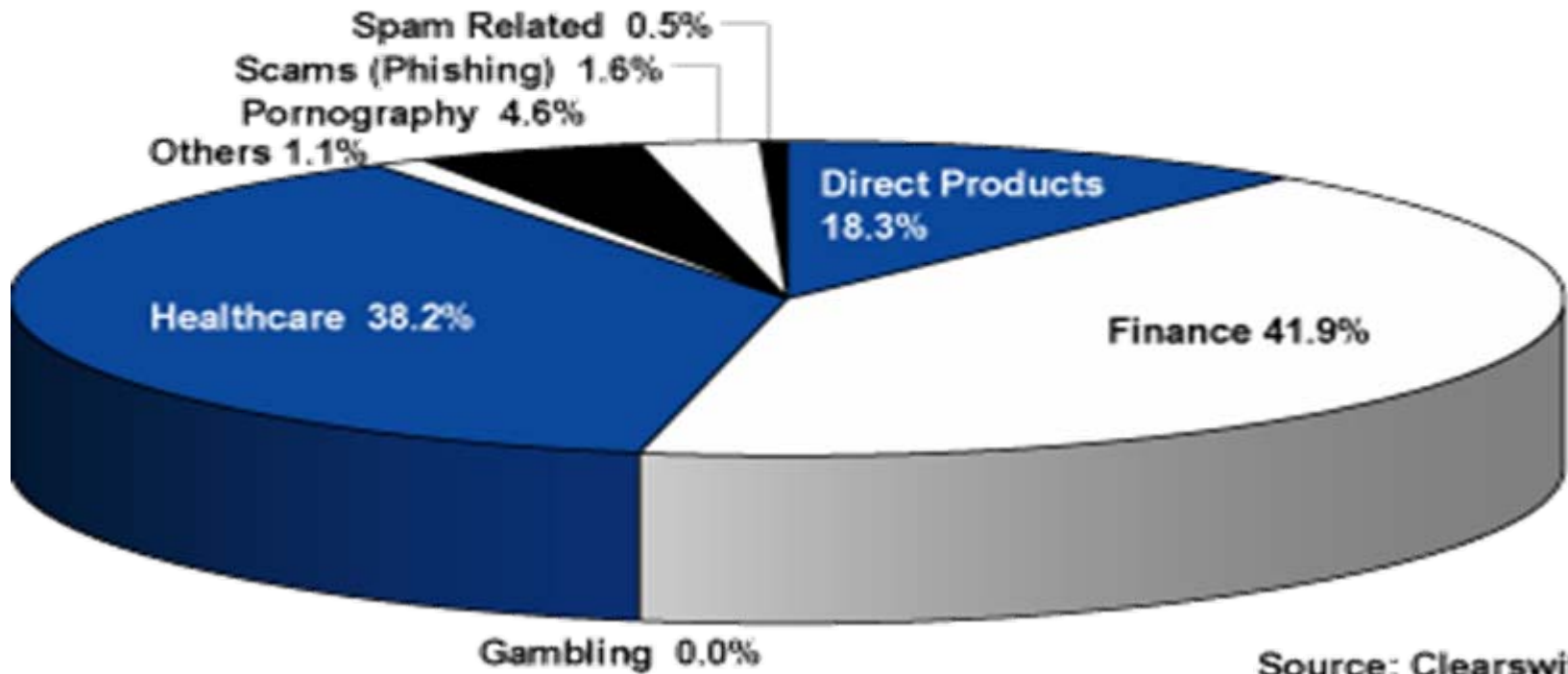
Types of Spam

- ▸ **Phishing spam**
    - ▪ Fake alerts from Banks, PayPal, Ebay extra, asking for confirmation, validation or monitoring of details
    - ▪ These link to fake login sites which can be used to capture user details (passwords etc) and this information can then be used to steal money or goods.
- ▸ **Online Casino spam**
    - ▪ Spam promoting gambling in online casinos
- ▸ **Fake Degrees spam**
    - ▪ Spammers often try to sell fake Degrees and Diplomas.
- ▸ **Mule job spam**
    - ▪ Promoting jobs "working from home" (which are typically scams, or mule jobs – laundering money or forwarding stolen goods)
- ▸ **Foreign language spam**
    - ▪ Sometimes difficult to tell with these, however, if you are receiving messages in Russian, Chinese, Korean, etc (and you don't speak these languages) then they are likely to be spam.
- ▸ **Direct product marketing for other products**
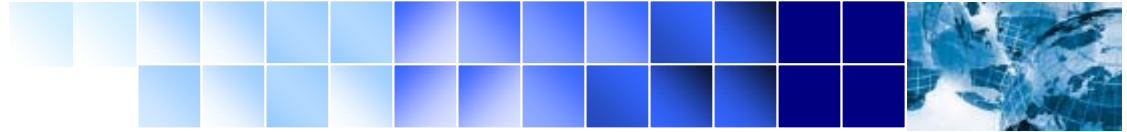   - ▪ A very small proportion of the spam total
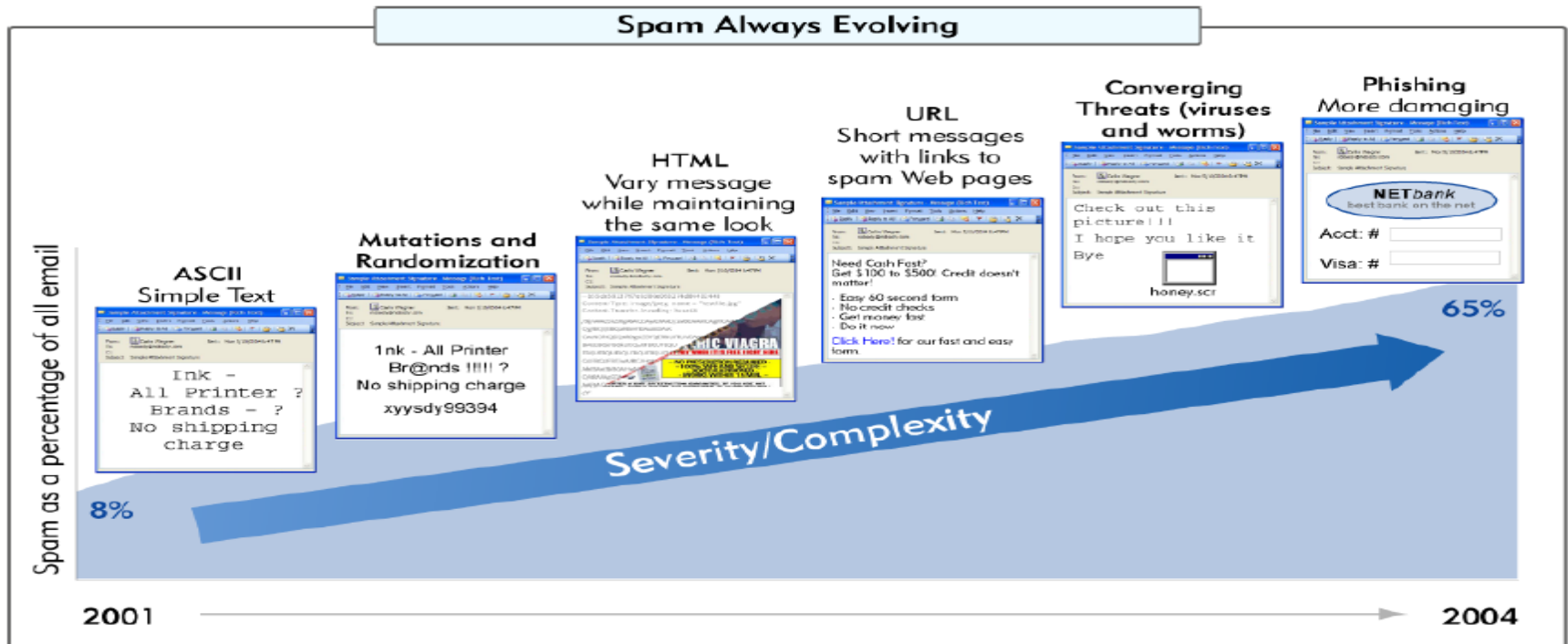
Types of Spam

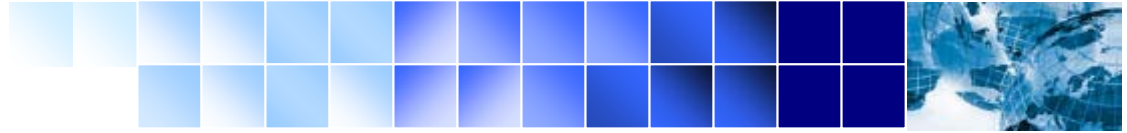Monthly Spam Categorization Breakdown Oct 2005

- Spam Related 0.5%
- Scams (Phishing) 1.6%
- Pornography 4.6%
- Others 1.1%
- Direct Products 18.3%
- Healthcare 38.2%
- Finance 41.9%
- Gambling 0.0%

Source: Clearswift

SPAM Evolution

Spam Always Evolving

ASCII Simple Text
- Ink – All Printer ? Brands – ? No shipping charge

Mutations and Randomization
- 1nk - All Printer Br@nds !!!! ? No shipping charge xyysdy99394

HTML
Vary message while maintaining the same look

URL
Short messages with links to spam Web pages
- Need Cash Fast? Get $ 100 to $500! Credit doesn't matter!
  - Easy 60 second form
  - No credit checks
  - Get money fast
  - Do it now
  - Click Here! for our fast and easy form.

Converging Threats (viruses and worms)
- Check out this picture!!! I hope you like it Bye — honey.scr

Phishing
More damaging
- NETbank best bank on the net
- Acct: #
- Visa: #

Spam as a percentage of all email

Severity/Complexity

8%

65%

2001 — 2004
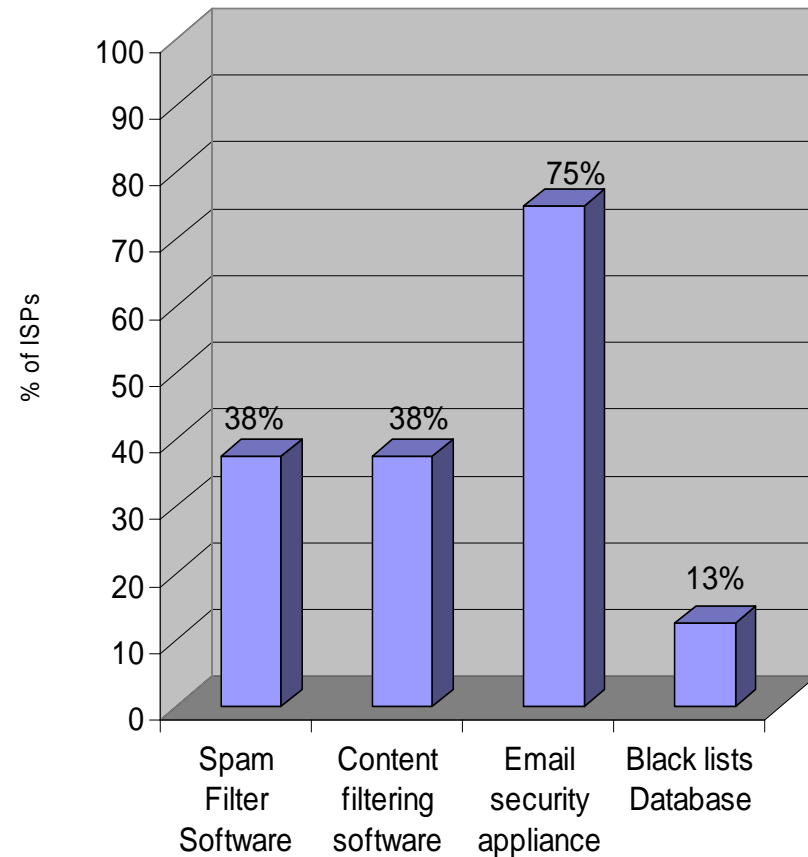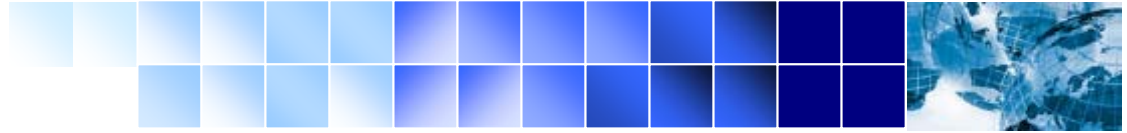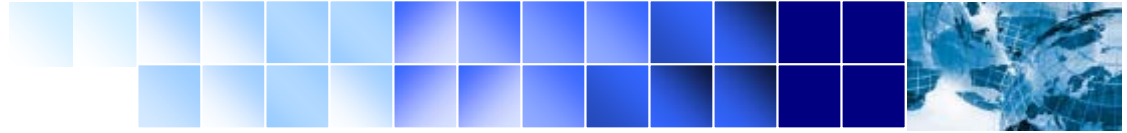
Scope and Extent (Global)

▸ **80% of Internet e-mail is considered as spam –** *International Telecommunication Union (ITU), 2004*

▸ **35% of Internet e-mail is considered as spam –** *International Telecommunication Union (ITU), 2003*

▸ **The estimated costs of spam to the global economy are approximately US$25 billion dollars per year –** *2005*

▸ **63 billion spam messages were sent each day –** *IronPort systems, October 2006*

▸ **31 billion spam messages per day –** *IronPort systems, October 2005*
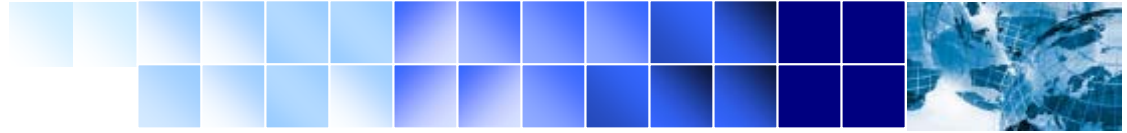
Spamming in Mauritius

▶ **Spam Study at Level of ISPs -** *NCB, September 2006*

- 74% of ISPs reported that they receive more than 500 spam e-mails on a daily basis.

- 75% of ISPs are using e-mail security appliances as technological measures to protect against spam

- 62% of ISPs mentioned that more than 70 % e-mails received from overseas are spam

- 25% of ISPs reported having received complaints from subscribers regarding spam email

% of ISPs

Category	Value
Spam Filter Software	38%
Content filtering software	38%
Email security appliance	75%
Black lists Database	13%

Spam Related Issues

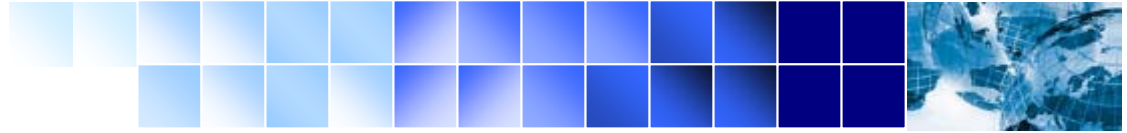- ## Costs To Consumers
  - Annoying or offensive to consumers
  - Imposes additional costs especially on individuals who access the network through pay-per-use or low bandwidth connections

- ## Overheads for Businesses
  - Employees may spend substantial amounts of work time sorting through email messages
  - Legitimate email related to their work and spam.

Spam Related Issues

▶ **Invasion of Privacy**

- Spammers use "zombie" computers to hide the true origin of the spam from consumers and make it more difficult for law enforcement to find, them.

- Spam may violate national law – e.g. if it constitutes an invasion of privacy (e.g. spyware), leads to malicious attacks on their personal property (e.g. viruses).

- Spammers may use software that allows them to hijack consumers' home computers and route spam through them.
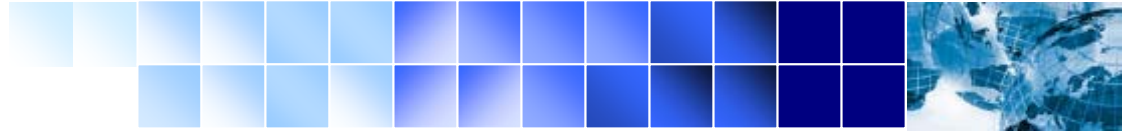
Spam Related Issues

- ▶ **Phishing and Fraud**
  - ■ Spam provides a cover for other forms of cyber crime
    - ● Identity theft through "phishing"
    - ● And other forms of online fraud
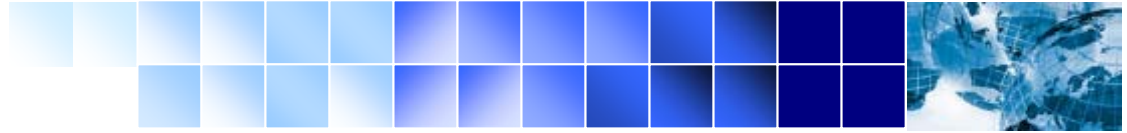- ▶ **Spreading of viruses and spyware**
  - ■ Spam provides a cover for spreading viruses, worms, trojans, spyware, etc.
  - ■ Sent as attachments to e-mail messages
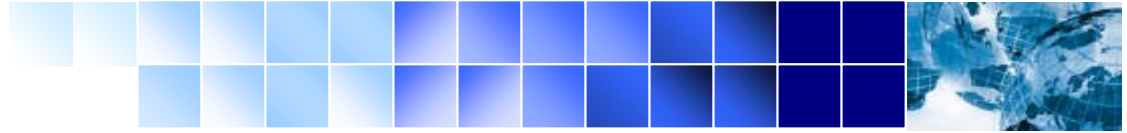
Spam Related Issues

▶ **Additional Costs To ISPs**

- Spam requires investment in a range of tools that are needed to counter spam
    - Anti-spam technologies (e.g. filtering technologies)
    - Server and transmission capacity
    - Human resources
    - Anti-spam information sharing, cooperation, and regulatory structures
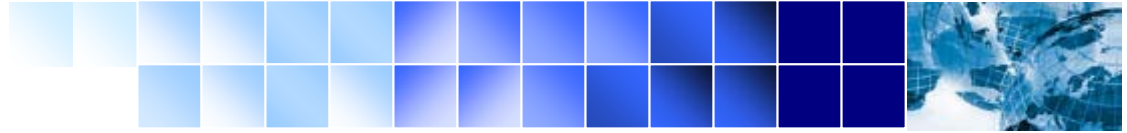
Anti-Spam Initiative : Why?

- **Spam is a threat to the Information Society**

- **WSIS Plan of Action : Mandate for international action against spam (Paragraph C5, d)**

  - *'Take appropriate action on spam at national and international levels.'*

- **Need to have a concerted approach**

Anti-Spam Action Plan Recommendations

▸ **Anti-Spam Committee**

▸ **Set-up October 2005**

▸ **Consultations in March 2006**

▸ **Spam Definition**

  ▪ *unsolicited electronic communications sent in bulk over e-mail, mobile (SMS, MMS) and instant messaging services, usually with the objective of marketing commercial products or services*

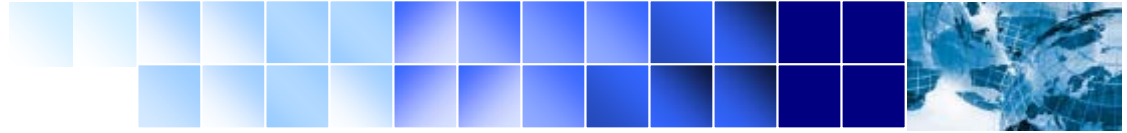# Anti-Spam Action Plan Recommendations

- **5 Key Aspects**

- **A.   General Awareness for users and businesses**

  - Recommendation 1: Public Awareness Campaign
  - Recommendation 2: Best Practices for IT Professionals
  - Recommendation 3: Monitor Effectiveness of the Awareness Campaign

- **B.   Guidelines and Best Practices for ISPs and Other Commercial Organisations**
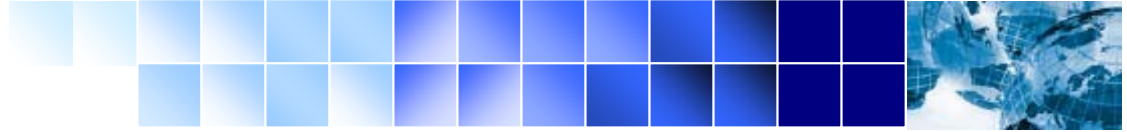- **C.   Anti-Spam Legislation**
- **D.   International Co-operation**
- **E.   Leadership and Monitoring of Action Plan**
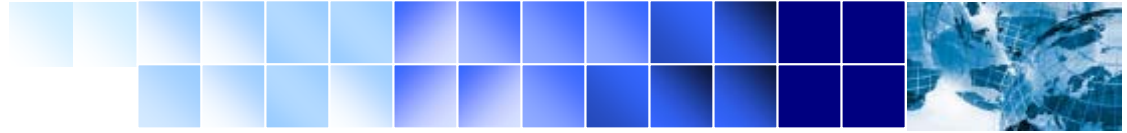
Leadership and Monitoring of Action Plan

- Anti-Spam Co-ordination Committee
  - **Monitor the implementation of the action plan**
  - **Act as a platform for stakeholders to share information on best practices to reduce spam**
  - **Provide policy guidance on measures for future actions to combat spam in Mauritius**
- Include representatives from public and private sectors, including NGOs, Internet community stakeholders and academia.
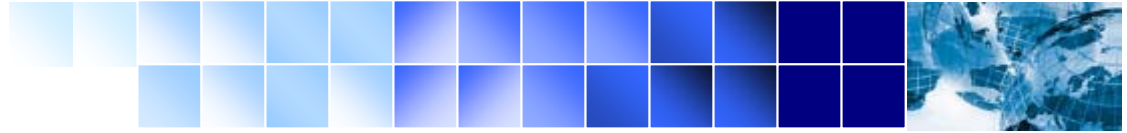
Objective Of Public Awareness Campaign

- **Users are the weakest link in the Information Security Chain**
- **Prevention is better than cure**
  - Need to educate users about the risks posed by spam
- **Anti-Spam Public Awareness Campaign**
  - Inform users about anti-spam measures to adopt in order to
    - limit amount of unwanted commercial email they receive
    - protect themselves and others against viruses
    - avoid falling prey to fraud
    - prevent their computers from being turned into zombies
- **Target Audience**
  - General public
  - Students
  - Public & Private employees
  - IT Professionals
  - SMEs

Anti-Spam Awareness Campaign

- **Actions**
  - Anti-Spam Slogan
  - Anti-Spam Awareness Sessions
    - Public Officer – ITSU/MITT
    - Private Officer – Private Company & NCB
    - Students – NCB
  - Anti-Spam Awareness TV Programme
  - Anti-Spam Website
  - Anti-Spam Brochures and Information sheets
  - Anti-Spam Pledge for ISPs
  - Spam information included in the Secondary IT curriculum
  - Annual Spam Study
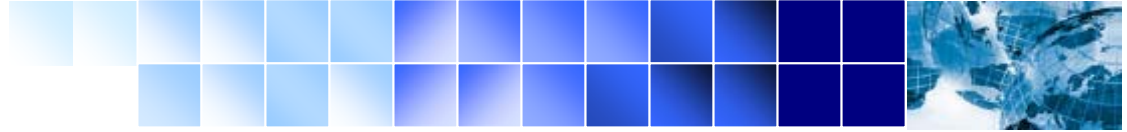 - Technical workshops for IT Professionals to disseminate Best Practices on Anti-Spam

Anti-Spam Slogan

STOP SPAM!

Spam is commonly referred as unsolicited communications sent in bulk over an electronic media such as e-mail, mobile (SMS, MMS) and instant messaging services, usually with the objective of marketing products or services.
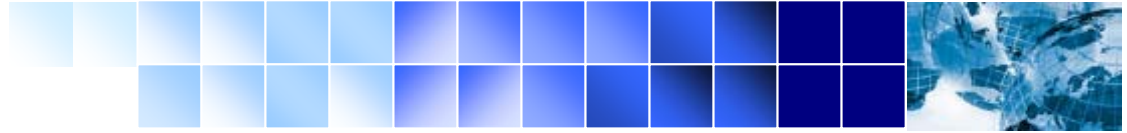
Key Tips for Users

- **Protect your computer**

  Spam is a growing source of computer viruses. It is critical that you protect your computer from virus-carrying messages. Install and regularly update antivirus and anti-spam software. If you don't have the extra protection of a firewall, get it.

- **Protect your email address**

  Reserve one email for your trusted personal and business contacts. Create a separate, expendable email address for other online uses.

- **Protect your Identity**

  Don't try, don't buy and don't reply to spam. Just delete it. It's a great way to prevent receiving more spam in the future. Configure your email client (e.g. Outlook) so as to block incoming mail from spammers.
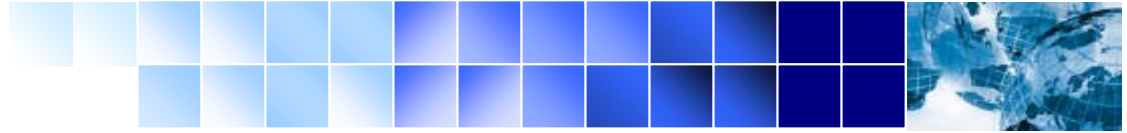
Anti-Spam Awareness Campaign

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# Anti-Spam Awareness Sessions for Secondary Schools Students

MONTH	DATE	SCHOOL
January	18/01/07	Adolphe De Plevitz SSS
	25/01/07	Bel Air Riviere Seche SSS
February	7/2/2007	E. Anquetil SSS
	19/02/07	Dr Maurice Cure State College
March	14/03/07	D. Ramphul State College
	22/03/07	Marcel Cabon SSS
April	26/04/07	D. Lallah SSS
May	09/05/07	Swami Sivananda SSS (Girls)
	24/05/07	La Tour Koenig SSS
June	05/06/07	John Kennedy College
	12/06/07	Mootoocoomaren Sungeelee SSS

Anti-Spam Awareness Campaign

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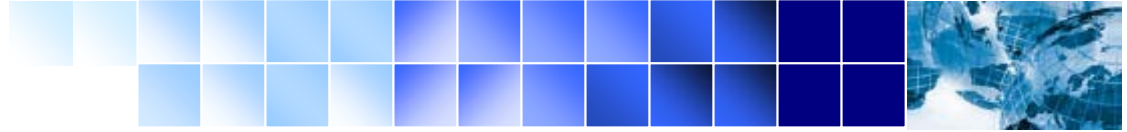
Anti-Spam Website

www.ncb.mu/anti-spam
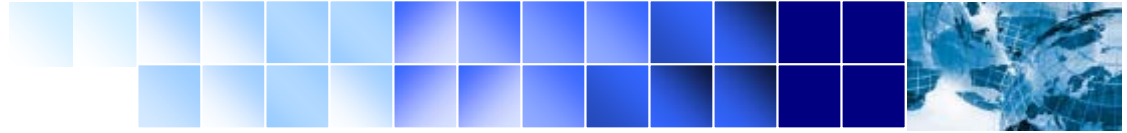
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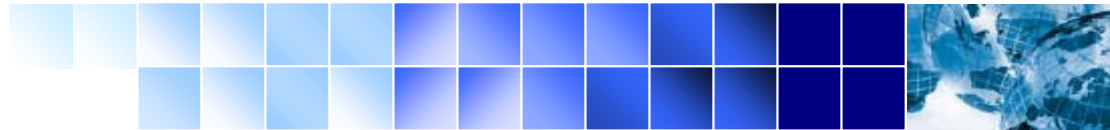
Do's

✓ If you send e-mail messages to a large number of addresses, use the BCC-field (Blind Carbon Copy). In this way the addresses are not visible to others.

✓ Encrypt your e-mail using an encryption program, if you want to be sure that only the addressee gets to know the content.

✓ Report any spamming activity by complaining to the spammer's ISP and get him disconnected.

Don'ts

✗ Don't buy, don't reply! Never react to spam, do not buy any product or service advertised and do not try to "unsubscribe" from the list! Purchases reward only the spammer and contribute to the business-case of spamming. Unsubscribing serves only to confirm to the spammer that your email address is still valid. It will consequently appear on more lists and databases.

✗ Do not react to false virus reports (also named hoax). These reports encourage you to take measures against a so-called virus. In reality there is no virus, but you will cause damage to your computer. Often you are being asked to send the virus report to as many people as possible. In this way the hoax is being spread like a chain letter, resulting in more damage and inconvenience to more people.

✗ Be careful when revealing your contact information on the Internet, like your e-mail address or telephone number. Consider who you are revealing it to and who might have access to it thereafter.

✗ Be cautious in giving away confidential information via e-mail or Internet, like your bank account number, PIN code, password or login data. Always think twice, consider if it is necessary and check whether the party on the other end is really who he claims to be.

Key Tips for Users

● *Protect your computer*

Spam is a growing source of computer viruses. It is critical that you protect your computer from virus-carrying messages. Install and regularly update antivirus and anti-spam software. If you don't have the extra protection of a firewall, get it.

● *Protect your email address*

Reserve one email for your trusted personal and business contacts. Create a separate, expendable email address for other online uses.

● *Protect your Identity*

Don't try, don't buy and don't reply to spam. Just delete it. It's a great way to prevent receiving more spam in the future. Configure your email client (e.g. Outlook) so as to block incoming mail from spammers.

National Computer Board

For more information and questions about spam you can contact us at:

National Computer Board
7th Floor, Stratton Court
Poudriere St, Port Louis, Mauritius
Tel: (230) 210 5520, Fax: (230) 212 4240
NCB Website: http://www.ncb.mu
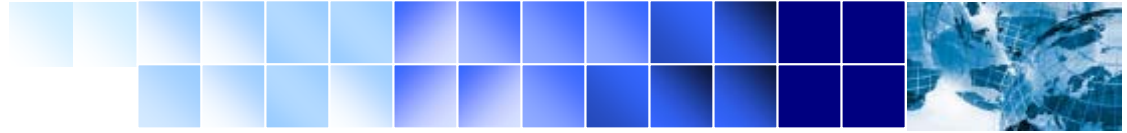Anti-Spam Website : http:// www.ncb.mu/anti-spam
Email: contact@ncb.mu

National Computer Board

STOP SPAM

Anti-Spam Initiative

For more details please visit the website:
http://www.ncb.mu/anti-spam

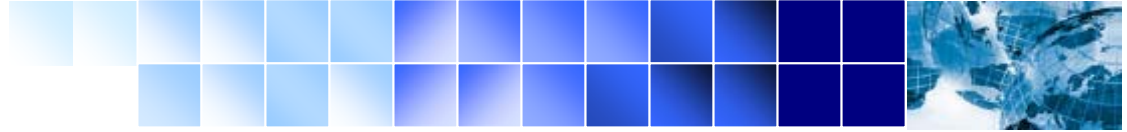# Anti-Spam Awareness Campaign

- ▶ **Actions**
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  - ▪ Anti-Spam Awareness Sessions
    - • Public Officers – ITSU/MITT
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  - ▪ Spam information included in the Secondary IT curriculum
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  - ▪ Technical workshops for IT Professionals to disseminate Best Practices on Anti-Spam

Conclusion

- **Spam**
  - Spam is on the increase
  - Impact is at multi-level
  - Is used
    - To Transmit malwares
    - As a vehicle for Identity Theft/Phishing
  - Anti-spam Initiative to tackle spam in operation
  - Need to sensitise all stakeholders including students/teachers
  - Multi-stakeholder public awareness campaign needed
    - Involvement of
      - ISPs
      - Consumer groups
      - Private sector
      - Government

Anti-Spam Initiative

Thank you for your attention