spam goes mobile

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Note: The views expressed in this presentation are those of the author and do not necessarily reflect the opinions of the ITU or its membership. Lara Srivastava can be contacted at lara.srivastava@itu.int
introduction and definitions
certainly we’ve all heard of e-mail spam…

• many hours daily spent in ‘spam triage’
• e-mail spam blamed for overloaded servers, decreased productivity (loss of income) and fraud
• emergence of even more nefarious threats, e.g. spim & phishing
• growing awareness of the problem in many circles, e.g. ISPs, user groups, regulators, international orgs (ITU, OECD…)
but what is *mobile* spam?

- can be defined as messages of an unsolicited nature delivered to mobile handsets, which:
  - try to sell something to the user;
  - ask the user to call a phone number, which may be a premium-rate service
  - destroy or change handset settings
  - are simply messages of a commercial nature that intrude upon a user’s right to privacy and/or carry harmful content

- Mobile spam is potentially more threatening than fixed-line spam
not just a rumour…
a question from the skeptics: “but is mobile spam a reality”?

- the short answer is yes, the long answer is: absolutely!
- advanced mobile economies are more affected
  - e.g. Korea, where mobile spam overtook fixed e-mail spam in 2003

Korean situation

Source: KISA
in japan too, spam on mobiles was already a big problem in ‘03

<table>
<thead>
<tr>
<th></th>
<th>to PCs</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spam sent to mobiles</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Spam sent from mobiles</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Spam sent from PCs</td>
<td>50%</td>
<td></td>
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</tbody>
</table>

Trends in the amount of spam sent from mobiles – following government and industry action

T. Shibuya, MPHPT, taken from Japan Computer Communications Association, 2003
forms of mobile spam

- mobile spam can take many forms
- pure forms occur as SMS, MMS or video messages
- Threat will (has) increase(d) with mobile e-mail and mobile internet
taking action against spam
legislative/governmental action

• USA
  – CAN-SPAM Act (Jan 2004)

• European Union

• Japan
  - Law on Regulation of Transmission of Specified Electronic Mail (April 2002)

• Korea
  - “Korea Spam Response Centre” est. under KISA

• Australia
examples of sanctions against mobile spammers

• China
  – People vs. Jianquan & Wenqui
    (text messages to swindle money in a lottery scam)
    – Penalty: imprisonment

• Russia
  – Complaint by operator Uralsky GSM
    (that 15’000+ subscribers were receiving spam SMS)
    – Penalty: probation and fine

• United Kingdom
  – cases brought by regulator ICSTIS
    (text messages, missed calls, premium-rate numbers)
    – Penalty: fines and barred from operating in UK
steps taken by mobile operators

- **NTT DoCoMo (Japan)**
  - DNS registration by mobile users (up to 10) for purposes of blocking
  - limited number of messages sent out by mobiles to 1’000 and then to 400 per day. 500 in the case of Vodafone (Japan)

- **Vodafone (UK)**
  - set up a phone number for consumer to forward spam, for purposes of blocking calls to premium rate numbers included in the spam

- **Orange (France)**
  - blocking text messages from entire countries (e.g. SA, Switzerland). Also similar to TIM blocking Vodafone UK

- **Verizon (USA)**
  - action against individual SMS spammers on a case-by-case basis
call for international collaboration
world summit on the information society (WSIS)

- United Nations summit led by ITU, involving governments, private industry and civil society

www.itu.int/wsis

- International Declaration adopted in December 2003 recognized that spam is a “Significant and growing problem for users, networks and the Internet as a whole”

- International Action Plan stated the need to “take appropriate action at both national and international levels”
activities to establish international collaboration in fighting spam

• ITU and other organizations continue to play an active role to
  – foster international cooperation;
  – create harmonized policy frameworks;
  – promote information exchange, best practices
  – providing assistance to developing countries

• Industry collaboration
  – through organizations like the Mobile Marketing Association (MMA)
  – MMA Code of Conduct includes 6 privacy C’s
highlights of the study
“insights into mobile spam”
First worldwide empirical study on mobile spam

• "Insights into mobile spam" looks at the effects of mobile spam on consumer behaviour and operator action, through web-based surveys for consumers & corporates (English, German, Chinese)

• Participants worldwide: 1’659 end-users, 154 Experts
in case you’re not yet convinced: mobile spam is here

Most consumers have received mobile spam

Have you ever received mobile spam?

CE = Central Europe
SEA = Southeast Asia
NA = North America

Source: Insights into Mobile Spam Report 2005
volume and types of mobile spam

How often did you receive the following types of mobile spam messages over the past year (2004)?

<table>
<thead>
<tr>
<th></th>
<th>Consumer CE</th>
<th>Consumer SEA</th>
<th>Consumer NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNO messages</td>
<td>16,7%</td>
<td>3,1%</td>
<td>9,7%</td>
</tr>
<tr>
<td>3rd party messages</td>
<td>18,1%</td>
<td>20,2%</td>
<td>26,2%</td>
</tr>
<tr>
<td>Misleading msg with premium number</td>
<td>50,6%</td>
<td>42,3%</td>
<td>31,1%</td>
</tr>
<tr>
<td></td>
<td>7,5%</td>
<td>5,9%</td>
<td>16,5%</td>
</tr>
<tr>
<td></td>
<td>36,9%</td>
<td>42,3%</td>
<td>58,3%</td>
</tr>
<tr>
<td></td>
<td>5,4%</td>
<td>64,7%</td>
<td>28,2%</td>
</tr>
<tr>
<td></td>
<td>57,7%</td>
<td>31,8%</td>
<td>13,6%</td>
</tr>
</tbody>
</table>

Source: Insights into Mobile Spam Report 2005
user receptiveness to mobile spam

Consumers are not pleased with the fact that they are targets for spam

What was (or would be) your reaction when you received Mobile Spam?

- **Pleased**
- **Neutral**
- **Annoyed**

**Consumer CE**
- 0%
- 19%
- 81%

**Consumer SEA**
- 1%
- 39%
- 60%

**Consumer NA**
- 1%
- 16%
- 84%

CE = Central Europe
SEA = Southeast Asia
NA = North America

Source: Insights into Mobile Spam Report 2005
steps taken by end-users when receiving too much mobile spam

Most consumers report complaints of mobile spam to their operator

What would you do if you received an unacceptable number of spam messages on your phone?

• most likely reactions:
  - complaints to the operator, followed by complaints to the regulatory agency

• subscribers more likely change their operator than change their mobile phone number!

Source: Insights into Mobile Spam Report 2005
impact on the operator’s brand

Negative brand perception for the mobile network operator

What do you think is the impact on the brand of your mobile operator, if it allows mobile spam to happen on its network?

- 84.8% of Asian end-users (74.1% E, 87.2% NA) believe that mobile spam has a negative impact on operator brand
- experts believe that a spam-free network can be communicated to customers as a competitive advantage

Source: Insights into Mobile Spam Report 20
current measures against mobile spam

Operators are suspending roaming agreements to control mobile spam

What are operator’s current measures against mobile spam?

- Suspend agreements (roaming and third party): 45.1%
- Customer telephone hotline: 39.8%
- Mobile spam filter solution in core network: 32.7%
- Customer complaint Web page: 26.6%
- Higher termination rates: 14.2%
- Mobile spam filter solution on handset: 5.3%
- Other: 14.2%
- Nothing - It is not an issue: 19.5%

*several answers possible

Source: Insights into Mobile Spam Report 2005
Conclusions

• Mobile spam is a growing problem for users but also for competitiveness of mobile operators
• There is no “one-size fits all” solution to mobile spam
• A combination of approaches may be the best solution, including
  – Filters and other technical solutions
  – Regulatory action (e.g. legislative)
  – User awareness and education
  – Industry initiatives, e.g. self-regulation
  – International collaboration
More information

• more information on the ITU’s Strategy and Policy Unit Activities:
  – www.itu.int/spu

• more information about the University of St.Gallen/BMD/ITU Study at:
  – www.mobilespam.org