GSMA/OMA Parallel Activity

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Mobile Spam Activity

Email Spam

- 2000-2002: 20% abuse
  - Mass-mailing, simple spam
- 2003-2004: 35% abuse
  - Viruses, malicious HTML
- 2005-2006: 65%-80% abuse
  - Contest scams, phishing, image spam, spyware, botnets, stock spam
- 2007-present: 90-99% abuse

SMS Spam

- 2005-2006: <5% abuse
  - Mass texting, premium service scams, toll calls
- 2007-present: 20-30% abuse
  - Unlimited text plans, bank phishing, signaling fraud, tethered senders
Mobile Spam Activity

• So mobile is about ten years behind us on the abuse growth curve
• The GSMA (mobile service providers) and the OMA (consortium producing handset and infrastructure specifications) are interested in getting ahead of the problem
Mobile Spam Activity

• GSMA feels that mobile abuse is on the rise and affects all carriers
  – Customer confidence maintenance is critical
  – Opportunity for global inter-carrier co-operation
• They need to get help from subscribers to identify spam, but don’t know how to engage them
• Looking at MARF (and MAAWG) to benefit from existing experience
Mobile Spam Activity

- French telecom federation (FFT) and mobile operators (AFOM) conducted a spam reporting experiment in 2008-2009
  - Forward spammy SMSes to a short code, 33.700
  - Operator requests that the subscriber then send the source information
  - Daily batches of completed spam reports forwarded to the abuse handling centre
Mobile Spam Activity

• After three months (Nov. ‘08-Jan. ‘09) 672,000 spam reports, 60-70% of which were completed
  – 495,000 of these were identified as spams with a “target number”
  – More than 460 numbers shut down, dozens of warnings sent
Mobile Spam Activity

• Some interesting trends observed
  – Common text properties, seasonal message changes

• Spammers began to move toward smaller operators
Mobile Spam Activity

• GSMA now preparing to conduct a similar pilot program with another short code
  – Global in scope
  – As a preliminary response while something more comprehensive is developed
Mobile Spam Activity

• In the future, seeking to put a “report spam” button directly on handsets
  – Role of the OMA to specify requirements

• This is where a mobile variant of ARF might be needed
  – Protocol between handsets and carriers
  – Inter-carrier reporting
  – Data sharing with bulk senders
Mobile Spam Activity

• OMA’s “SpamRep” proposal
  – Specifies handset software changes
  – Includes ARF as an informative reference
  – Destination of SpamRep reports is provisioned by the provider to the device
  – MNO collects and aggregates data about spam reports and updates both content and blacklist filters
  – No direct provisioning for inter-carrier reports
Mobile Spam Activity

• One option includes the user selecting the ARF-style Feedback-Report type

• Some things SpamRep addresses that ARF doesn’t:
  • Possibility of reporting only parts of a multipart SMS as objectionable content
  • Ability to query the MNO about their response to an abuse report (blacklist update, content filter rule added, measured effectiveness of both)