



The Increasing Complexity of Spam

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A spam campaign is a marketing campaign

- Marketing campaigns have:
 - Incentives (in the content)
 - Calls to action (the links in the message)
 - A source – the sender IP

Spammers want leads

- Spammers want to get leads, but stay unaccountable for their theft of resources, so they innovate...

Content

- Modify the content of the message to avoid filtering (signature, keyword, etc.)
 - Obfuscations (v1agra, \ /iagra)
 - Word salad (tiger, forehead, tomato...)

Is spam effective?

- Is it effective? Obvious scam
- Less porn, more pills
- More high margin, low cost of delivery products to gain profit
- Target insecurities and biases

Sources

- Hide the actual source of the message to avoid accountability and blocking
- Open proxies provide great cover
- Spread by worm outbreaks
- Multi-Level-Marketing sender programs (VirtualMDA)
- Hijacked network blocks (bgp spoofing)

What's next?

- Asymmetric routing for IP spoofing

Destinations

- Http, dns even on infected machines
- Rolling through domains very quickly
 - Over 500,000 domains being tracked currently

Summary

- People buy from spammers
- Spammers generate revenue
- Revenue drives innovation
- Innovation drives exploit economy

HP WORLD 2004

Solutions and Technology Conference & Expo

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