

The Recent Development of Internet in HK

**Presented by York Mok,
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Agenda

- **Statistics**
- **The Regulation of IP Telephony**
- **Broadband Wireless Access**
- **Anti-Spam**
- **Safe Environment for E-Mail/E-Com**



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Statistics (1/2)

- **Internet**

- Internet Service Providers 189
- Dial-up access customers 997,654
- Broadband access customers 1,153,103
- HH broadband penetration rate 61.6%



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Statistics (2/2)

- **Telecommunications Services**

– Wireline-based local FTNS operators	9
– Wireless-based local FTNS operators	1
– FTNS operator over Hybrid Fibre Coa Cable Network	1
– FTNS operators for distribution of free TV service	2
– Satellite-based external FTNS operators	6
– Cable-based external FTNS operators	19
– External telecom service operators	219
– Fixed line penetration per population	54.5%



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The Regulation of IP Telephony (1/3)

- **Two categories of IP Telephony Service**
- **Some minimum requirements for the IP services that replacing fixed telephone lines**
 - Emergency services
 - Capability to call any telephone number
 - Reliability comparable to fixed lines, such as battery backup
- **Minimum regulation to be applied to new technologies**



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The Regulation of IP Telephony (2/3)

- **Allocating numbers with more digits to voice services not meeting the minimum requirements or same length irrespective of whether meeting the minimum requirements or not**
- **Regulator requires operators to provide adequate information so that consumers can make “informed choice”**
 - Declaration in the sales literature
 - Labelling

The Regulation of IP Telephony (3/3)

- **Too much mandatory regulation is against the general trend of “deregulation”**
- **Industry self-regulatory schemes**
 - Code of practice
 - Quality mark



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Broadband Wireless Access (1/3)

- **WiFi provides limited coverage**
 - 100 metres from each “access point”
 - 300-odd “hotspots” only
 - Shared spectrum
 - Inherent security risks



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Broadband Wireless Access (2/3)

- **Broadband Wireless Access (BWA) technologies like Wi-Max**
 - Spectrum not shared
 - Several km or more from each “access point”
 - Signals can penetrate into buildings to provide residential Internet service



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Broadband Wireless Access (3/3)

- **Issues**

- BWA technology cannot support “full mobility” similar to 3G in the first few years
- Allow to use for “last mile” access or hold off until full mobility becomes mature (ref Mandatory “Type II Interconnection” to be withdrawn in mid-2008)
- Monetary bid for license or beauty contest



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Anti-Spam (1/6)

- **Spam 69%, Virus 7% of email (March 2005)**
- **75% of spam is sent from botnets**
- **30,000 new zombies appearing each day**
- **Dictionary attacks for business domains**
- **Globally China is now the highest spam levels at 80%, HK 57%**



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Anti-Spam (2/6)

- **Secretary of Commerce, Industry and Technology announced “STEPS” campaign to combat spam**
- **Anti-spam legislation is to prohibit “unsolicited electronic messages (UEM)”**
- **Commercial UEM only or extended to fraudulent, pornographic content and virus UEM ?**

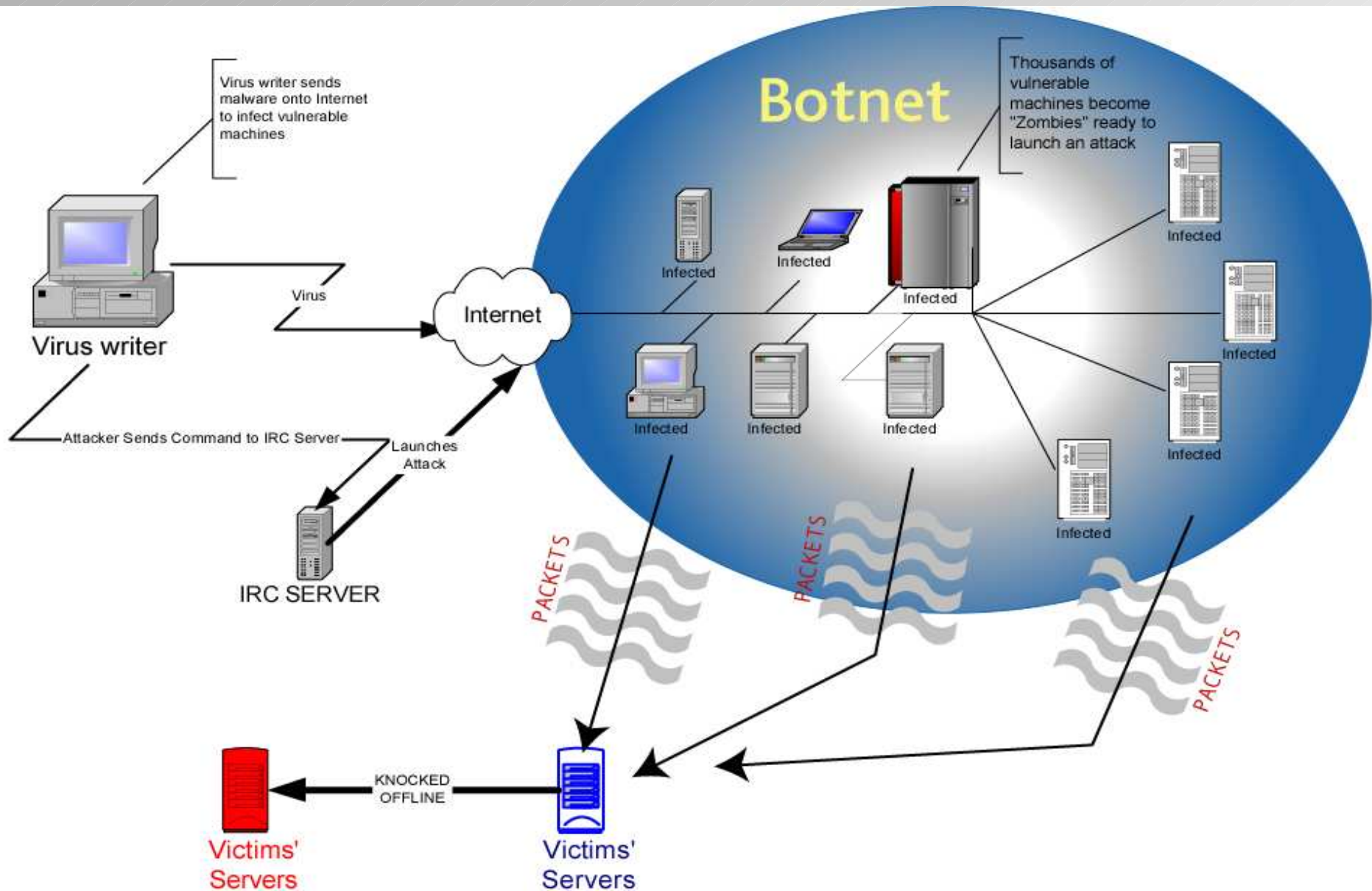
Anti-Spam (3/6)

- **Opt-in or Opt-out**
- **Most countries adopt “opt-in” approach, however in Europe there is an exception in that the recipient has a prior business relationship with the sender**
- **“Opt-in” gives greater protection to recipients but imposes restrictions on marketers**
- **The legislation shall strike the proper balance between protection of users of electronic messaging services and legitimate commercial communications and marketing activities**
- **HKISPA support the launch an Email Abuse Centre which includes a common blacklist platform**



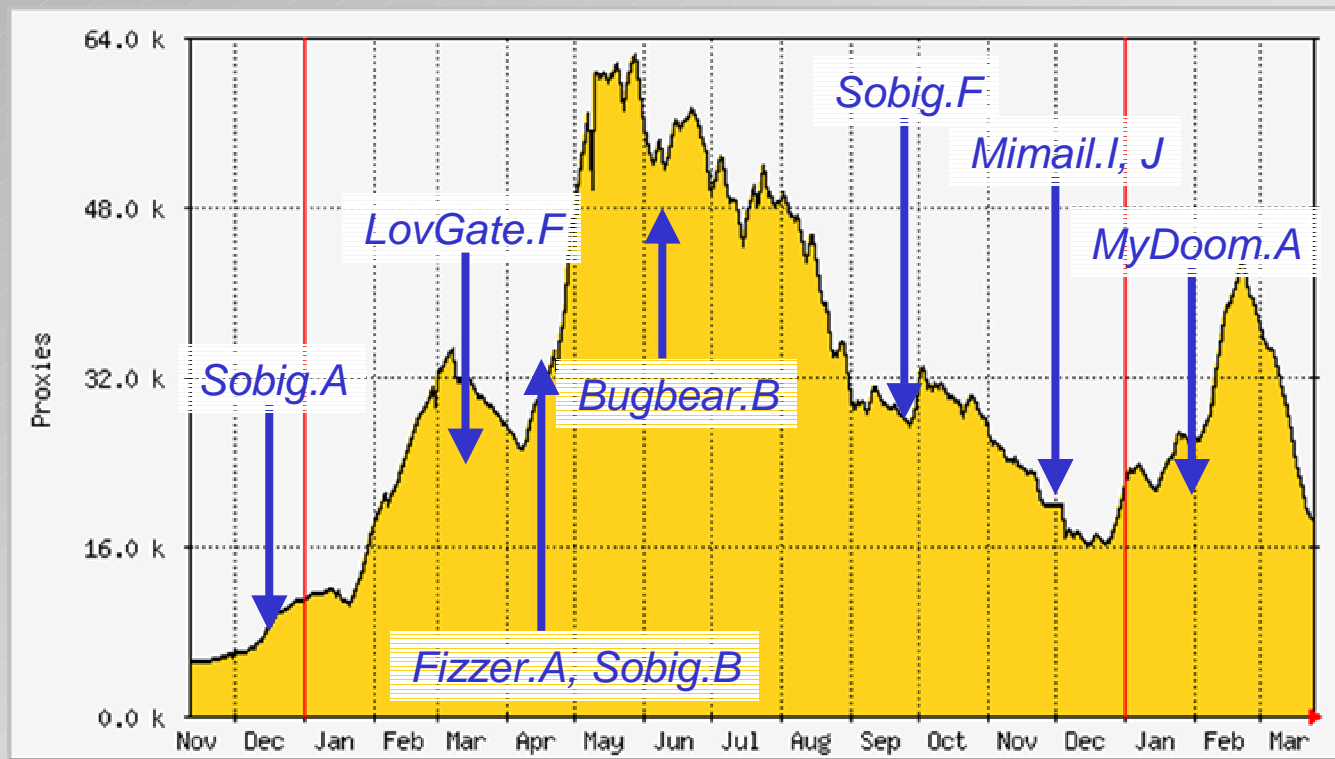
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Anti-Spam - Anatomy of a Botnet (4/6)



Anti-Spam - The “Bot-net” Phenomenon (5/6)

How many bots are there?



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Anti-Spam - How Does Spamware Typically Work? (6/6)

Send-Safe v2.19b (build 544) - C:\Program Files\Send-Safe

File Run Mail Help

Send Safe Elapsed: 00:00:00
Sent: 0
Fails: 0

Deliverability: 100%
Avg speed: 30000 mails/hour

- # 1: Ready
- # 2: Ready
- # 3: Ready
- # 4: Ready
- # 5: Ready
- # 6: Ready
- # 7: Ready
- # 8: Ready
- # 9: Ready
- # 10: Ready
- # 11: Ready
- # 12: Ready
- # 13: Ready
- # 14: Ready
- # 15: Ready

Resume Start New Pause

Leased until: 2004-06-24 16:56:56
Credits Total: 10 000 000
Credits Left: 96 075
Message Size: 875 bytes
Processed : 0

Messages Maillists Rotation Settings Proxies Advanced Test

Send test messages

Send email to: testaddress1@yahoo.com

Number of emails to send: 1

Test the message against SpamAssassin

X-Spam-Checker-Version: SpamAssassin 2.70-r6188 (2004-01-17) on HOME
X-Spam-Level: ***
X-Spam-Status: No, hits=2.7 required=5.0 tests=NO_REAL_NAME,ONE_TIM autolearn=no version=2.70-r6188

Test

23:49:23 Welcome to Send-Safe server!
23:49:23 Latest version is 2.18 beta
23:49:23 http://www.send-safe.com/send-safe.exe

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Safe Environment for E-Mail/E-Com (1/2)

- **Internet is not a safe environment**
 - Virus
 - Spam
 - Phishing e-mail to redirect users to fake web sites
 - Trojan, spyware...build up a pharming environment that redirect users to fake web site



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Safe Environment for E-Mail/E-Com (2/2)

- **Secure Internet environment is the new trend of business direction**
 - Internet security solutions, such as Firewall, Intrusion Detection System,...
 - Internet security and parameters audit and monitoring services
 - Managed internet connectivities and data center services



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Thank you

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