# Anti-spam activities in Japan

Kazu YAMAMOTO Internet Initiative Japan Inc.

kazu@iij.ad.jp

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# Cellular phone worlds and the net

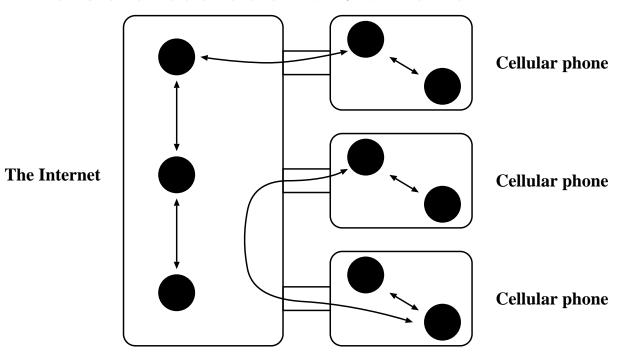
#### Cellular Phones

- Japan is a paradise of cellular phonesAbout 70% of Japanese have them
- They provide e-mail services
   AU, DoCoMo, and Vodafone



# Cellular Phone Networks

■ E-mails are reachable from/to the net



#### Spams to Cellular Phones

- This is a big problem in Japan!
  - Fee is per packet basis
  - Receive spams and lose money!
- They developed white list of domain
  - It accepts all cellular phone messages by default
  - Users can enumerate domains to receive
- Spams from the net (e.g from zombies)
  - probably are not received thanks to the white list
  - though zombies are cost-less for spammers
- Spams from celluar phones
  - probably are received
  - though it costs much for spammers

Categories of Spam

# Categories of Spam

- Unsolicited advertisement (未承諾広告)
- Trap to online dating (出会い系サイトへの誘導)
  - Starting with daily conversation
  - Continuing conversation leads the victim to an online dating system
  - He will result in paying much money
- Phishing
  - Japanese versions appeared

#### Trap to online dating

Do you want to reply to this?

Subject: Excuse me. From: Tomomi INOUE

You sent me a message, didn't you?
I thought this is a spam at first
but I realized that your address does not seem strange.
So, I'm replying to you.

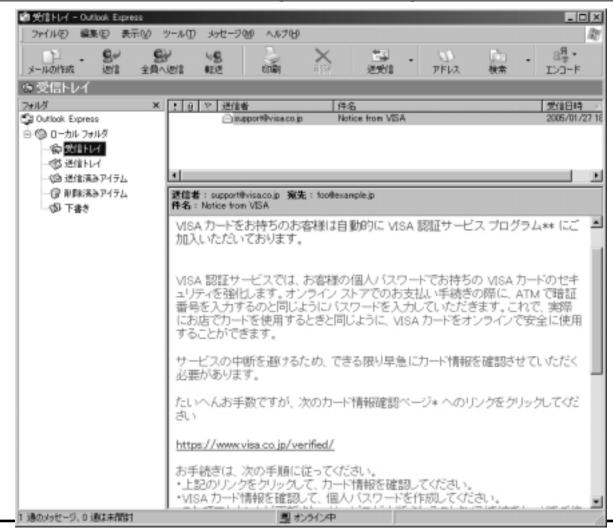
Are you a guy with whom I had a chat on the net??

Subject: あの~ From: 井上知美

メールくれましたよね? 最初は迷惑メールかと思ってたんだけど よく見たらそんな変なアドレスじゃないので メール返してみたんですが、 以前どちらかのチャットか何かでお話したかたですか??

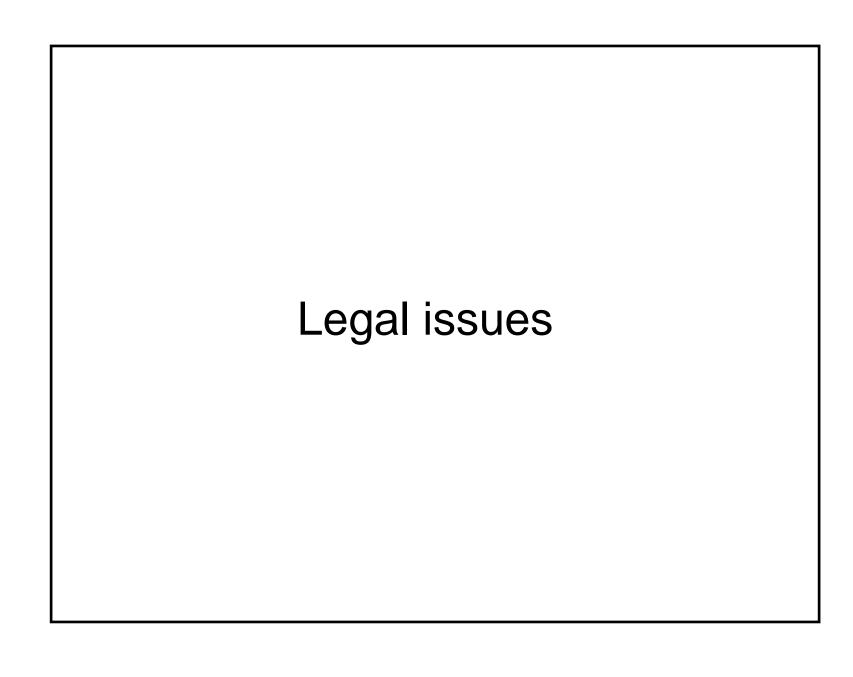
It is very difficult to filter this kind of spams!

## Phishing Message



## **Phishing Site**





#### Laws

- The constitution of Japan (Item 2 of Article 21)

  No censorship shall be maintained,

  nor shall the secrecy of any means of

  communication be violated
- 日本国憲法 (21条2項) 検閲は これをしてはならない 通信の秘密は、これを侵してはならない
- Telecommunications Business Law

Article 3: No communications being handled by a telecommunications carrier shall be censored.

Article 4: The secrecy of communications being handled by a telecommunications carrier shall not be violated

#### ■電気通信事業法

3条:電気通信事業者の取扱中に係る通信は、

検閲してはならない

4条:電気通信事業者の取扱中に係る通信の秘密は、

侵してはならない

#### Ambiguities of the Law

- Telecommunications Business Law is too old
  - based on telephone networks
  - What is censorship on the net?
  - What is the secrecy of communications on the net?
- Buitl-in content filtering without prior explicit consent of user is probably illegal
  - Pre-learned bayesian filter
  - URL filter
  - Signature filter
- ISP/ASPes provide filtering on sign-up basis
  - Users should enable it by themselves
  - e.g. ASAHI Net, IIJ
- How about filtering based on source?
  - Black list of IP addresses
  - Classic SPF, Sender ID
  - DomainKeys

#### Spam Law

- The Law on Regulation of Transmission of Specified Electronic Mail (特定電子メール送信適正化法)
  - Enforced in 2002.7.1
- Obligation of advertisers
  - Subject: Unsolicited Advertisement (未承諾広告)
  - Body: name, address, e-mail address, e-mail address to opt out
- Prohibiting advertisement to random addresses
- Penalty
  - Fine of up to 500,000 JPY

#### Is Spam Law Effective?

- Procedure for penalty
  - End users report
  - MIC(Ministry of Internal Affairs and Communications)
     sends a warning message to the advertiser
    - MIC = 総務省
  - If ignored, MIC issues an administrative order
- Only 3 instances of administrative order!
  - for 3 years
  - No instance of fine!

## Revising Spam Law

- The Law should be revised after 3 years
- "Study group on a framework to handle spam" pointed out
  - Does not cover SMS(Short Message Service)
    - SMS is not based on SMTP
  - Does not prohibit harvesting
    - Messages which have empty body are not advertisement
  - Not practical
    - Police should take an action when an end user reports
- Public comments
  - e.g) We agree on the revision basically
  - e.g) But clarify the censorship in Telecommunications Business Law
  - e.g) But clarify the secrecy of communications

#### Police and Phisher

- Phishing 110 (フィッシング 110 番)
  - Police's special office against phishing
     http://www.npa.go.jp/cyber/policy/phishing/phishing110.htm
- Police tries to arrest phishers when reported
  - as obstruction of business (業務妨害罪)
  - as violation of the copyright law (著作権法違反)
- We should report when find

#### Honey Pot by Government(1)

- **2005.2** 
  - http://www.meti.go.jp/press/20050121003/20050121003.html
- Capturing spams as end users
  - Analyzing spams and telling Ministries
  - Denkyo (日本データ通信協会)
    - http://www.dekyo.or.jp/
  - Japan Industrial Association (日本産業協会)
    - http://www.nissankyo.or.jp/
- Telling ISPes/banks
  - Ministry of Internal Affairs and Communications (総務省)
    - Telling abused e-mail addresses to ISPes
  - Ministry of Economy, Trade and Industry (経済産業省)
    - Telling abused accounts to banks
- ISPes could cancel the contract to prevent the bad guy from sending spams
- Banks could close the accounts to prevent the bad guy from withdrawing cash

#### Honey Pot by Government(2)

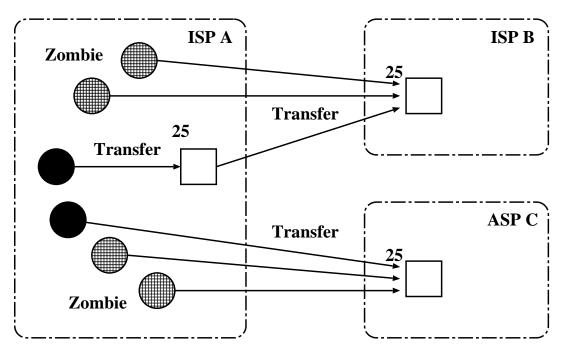
- ISPes welcome this project
  - Some ISPes hesitate to cancel contracts
    - e.g) When an ISP canceled the contract of a spammer, he started boycott of products made by its parent company. So, the parent company complains to the ISP.
  - If the government says it's OK, most Japanese think it's a right way to do
    - i.e) The parent company does not complain to the ISP.
- This project would be effective to
  - spams from cellular phones
  - spams from ISPes with correct addresses
- This project would not be effective to
  - spams from ISPes with faked addresses (e.g zombies)
- We need a framework to trace e-mails

Roadmap to traceable e-mails

## Technical Roadmap

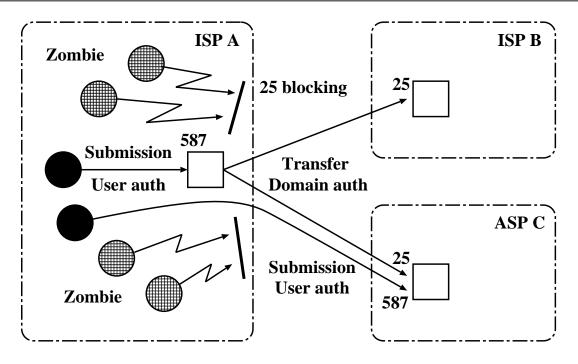
- Rough consensus among e-mail operators
  - Not official policies of ISP/ASPes but...
- Immediately
  - Providing the Submission port (587)
  - Mandating user authentication for Submission
- Near future
  - Outbound port 25 blocking from dynamic IP (if necessary)
    - We can make a black list against statically assigned IP addresses
  - Rate control of Submission
  - Domain authentication for mail transfer
    - Classic SPF, SenderID
    - DomainKeys
- Future
  - Accreditation services (if necessary)
  - Reputation services (if necessary)
  - Error mail verification





- Massive spams from Zombies
- Phishing with faked e-mail addresses





- Separation of transfer and Submission
- Blocking spams from zombies
- Submission with user authentication
- Transfer with domain authentication

# **Outbound Port 25 Blocking**

- Plala Networks
  - To cellular phone networks only
  - (From dynamically assigned IP addresses)
  - **2005.1.31** 
    - http://www.plala.or.jp/access/living/releases/nr05\_jan/0050127.html
- WAKWAK (NTT-ME)
  - To any destinations
  - From dynamically assigned IP addresses
  - **2005.3.1** 
    - http://www.wakwak.com/info/news/2005/port25blocking0107.html



#### **Statistics**

- Where do spams come from?
  - IIJ counted "user unknown" messages
  - Resolving a country with its source IP address
  - **2004.12.20**

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total 374,093

JP 99,370 (26.6%)

US 83,287 (22.3%)

KR 63,097 (16.9%)

CN 40,791 (10.9%)

FR 8,437 (2.3%)
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- We should recognize JP, KR & CN generate many spams!
  - We need to collaborate to decrease spams
  - Otherwise, the entire AP region would be filtered out by other regions