Port 25 Management in Brazil: Overview and Results

Cristine Hoepers
cristine@cert.br

Klaus Steding-Jessen
jessen@cert.br

Computer Emergency Response Team Brazil - CERT.br
Network Information Center Brazil - NIC.br
Brazilian Internet Steering Committee - CGI.br
CGI.br and NIC.br Structure

GOVERNMENT (Appointed)  I. E.  CIVIL SOCIETY (Elected)
1 – Ministry of Science and Technology (Coordination)
2 – Ministry of Communications
3 – Presidential Cabinet
4 – Ministry of Defense
5 – Ministry of Development, Industry and Foreign Trade
6 – Ministry of Planning, Budget and Management
7 – National Telecommunications Agency
8 – National Council of Scientific and Technological Development
9 – National Forum of Estate Science and Technology Secretaries
10 – Internet Expert
11 – Internet Service Providers
12 – Telecommunication Infrastructure Providers
13 – Hardware and Software Industries
14 – General Business Sector Users
15 – Non-governmental Entity
16 – Non-governmental Entity
17 – Non-governmental Entity
18 – Non-governmental Entity
19 – Academia
20 – Academia
21 – Academia

Executive Branch → nic.br
Administrative Support
Legal Counsel
Public Relations

Registro.br
Cert.br
Cetic.br
Ceptro.br
W3C Brazilian Office

Domain Registration
IP Assignment

Studies and Surveys
About ICT use

Internet Engineering
and New Projects

4th Latin American and Caribbean Meeting of CSIRTs – Medellin, Colombia, May 07, 2013
The Brazilian Internet Steering Committee - CGI.br

CGI.br is a multi-stakeholder organization created in 1995 by the Ministries of Communications and Science and Technology to coordinate all Internet related activities in Brazil.

Among the diverse responsibilities reinforced by the Presidential Decree 4.829, has as the main attributions:

- to propose policies and procedures related to the regulation of Internet activities
- to recommend standards for technical and operational procedures
- to establish strategic directives related to the use and development of Internet in Brazil
- to promote studies and recommend technical standards for the network and services’ security in the country
- to coordinate the allocation of Internet addresses (IP) and the registration of domain names using <.br>
- to collect, organize and disseminate information on Internet services, including indicators and statistics

http://www.cgi.br/english/
CERT.br Activities

- Incident Handling
  - Coordination
  - Facilitation
  - Support
  - Statistics

- Training and Awareness
  - Courses
  - Presentations
  - Documents
  - Meetings

- Network Monitoring
  - Distributed Honeypots
  - SpamPots

http://www.cert.br/about/
Agenda

• What is the problem
• What is port 25 Management
• How Brazil left the CBL Top 10
  – Antispam Task Force work
  – Port 25 management adoption agreement
  – Results
• Situation in Latin American and Caribbean Networks
  – The current top countries

• Next presentation:
  – Telefonica Brazil Implementation Case Study

Presenter: Rogério Gomes
What is the Problem

Spammers
Malware

Cable, DSL, Dial-up

Senders e-mail Provider

Receivers e-mail Provider
What is Port 25 Management

Spammers
Malware

Cable, DSL, Dial-up

Senders e-mail Provider

Receivers e-mail Provider

Diagram showing the flow of data between spammers, cable, DSL, dial-up, senders, and receivers.
Brazilian Telecommunications Legal Framework

• The scenario in Brazil is very unique: regulation split the services between:
  – broadband provider – provides connectivity and IP address
  – ISP – authenticate the user and provide services like e-mail, web, etc

• The adoption of port 25 management needed to be articulated among competing players
Anti-spam Task Force – Port 25 Management Working Group

• Common Goal: reduce the abuse of the Internet infrastructure in Brazil by spammers
  – Brazil was being appointed as a big “source” of spam
  – Brazilian networks were being affected negatively

• Who was involved
  – Initially: Telcos, ISPs and Associations of these sectors, Anatel, the CGI.br representatives for these sectors and CERT.br
  – Players identified in further meetings: Federal Prosecutor’s Office, Consumer Defense organizations and Ministry of Justice

• Sensitive issues:
  – Competitive issues among ISPs and Telcos
  – No one would admit how big the problem really was and what was the real impact for the infrastructure or the consumers
Regular Meetings to Negotiate Port 25 Mgmt Adoption

- **Port 25 Management in Brazil depended on a coordinated effort:**
  - 1\textsuperscript{st}: ISPs offering Message Submission services and changing at least 90% of their clients’ configuration
  - 2\textsuperscript{nd}: Telcos blocking outbound port 25 traffic – residential networks only

- **A formal implementation agreement was agreed and signed**
  - CGI.br, NIC.br, Anatel, Telcos and ISP Associations
  - The consumer protection associations supported formally the agreement

- **Once the agreement was signed, NIC.br/CERT.br started a national awareness campaign about**
  - the importance of these measures
  - the impact on the consumers
  - part of the Antispam.br Campaign
Configure a porta de envio de suas mensagens para 587!

Com a Gerência da Porta 25, o Brasil vai reduzir o volume de spams enviados em nosso país.

Você ajuda o Brasil a melhorar a Internet e ainda evita dores de cabeça.

Conheça neste site mais detalhes do Gerenciamento da Porta 25.

Afinal, quem tem que ficar de fora são os spams, e não você!
**Graphic Explanations about the Change**

**COMO É HOJE**
PARA QUEM USA LEITORES DE E-MAIL
(Outlook, Thunderbird, etc.)

1. **SPAMMER**
   - de: spammer@endereço.ralo
   - para: vitima1@terra
   - vitima2@gmail
   - vitima3@yahoo
   - vitima4@uol

2. **INTERNET**
   - [conta/senha]
   - de: usuario@gmail
   - para: fulano@terra

3. **USUÁRIO COM OUTLOOK OU THUNDERBIRD**
   - [conta/senha]

4. **REDE DA OPERADORA**

**COMO VAI FICAR**
PARA QUEM USA LEITORES DE E-MAIL
(Outlook, Thunderbird, etc.)

1. **SPAMMER**
   - NÃO HÁ MUDANÇA NO USO DA PORTA 25 PARA COMUNICAÇÃO ENTRE SERVIDORES DE E-MAIL

2. **INTERNET**
   - [conta/senha]
   - de: usuario@gmail
   - para: fulano@terra

3. **USUÁRIO COM OUTLOOK OU THUNDERBIRD**
   - [conta/senha]

4. **REDE DA OPERADORA**

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Históricamente, tanto a troca de mensagens entre servidores de e-mail quanto a submissão de e-mails de clientes para o seu provedor sempre foram feitas pela porta 25. Essa característica é abusada por spammers, que usam computadores de todo o mundo se fazendo passar por servidores de e-mail.

O Brasil tem sido classificado como um dos países com o maior número de máquinas sendo abusadas ou infectadas por códigos maliciosos que invadem e-mails para enviar spam.

Com a troca da configuração do programa cliente de e-mails para a porta 587, adotada em vários países nos últimos anos, as redes que fornecem acesso residencial podem impedir conexões com destino à porta 25, cessando o abuso sem afetar o consumidor.

A troca de mensagens entre servidores continua ocorrendo na porta 25.
Results
From CBL 1st in 2009 to 25th in 2013

The deadline for the implementation was March 2013
Evolution of the Main Brazilian ASNs in CBL

ASNs: comparação entre os sistemas autônomos
2012-10-16 -- 2013-05-02
Situation in LAC Countries
Comparison of the top LAC Countries in CBL

CCs da América Latina na CBL: Endereços IP listados
2012-10-16 -- 2013-05-02

source: CBL | by Highcharts.com
References

• Managing Port 25 for Residential or Dynamic IP Space: Benefits of Adoption and Risks of Inaction

• OECD Anti-Spam Toolkit of Recommended Policies and Measures
  http://www.oecd-antispam.org/article.php3?id_article=265

• Antispam.br end user campaign
  http://www.antispam.br/porta25/
Questions?

Cristine Hoepers  
<cristine@cert.br>

Klaus Steding-Jessen  
<jessen@cert.br>

- CGI.br - Brazilian Internet Steering Committee  
  http://www.cgi.br/

- NIC.br  
  http://www.nic.br/

- CERT.br  
  http://www.cert.br/