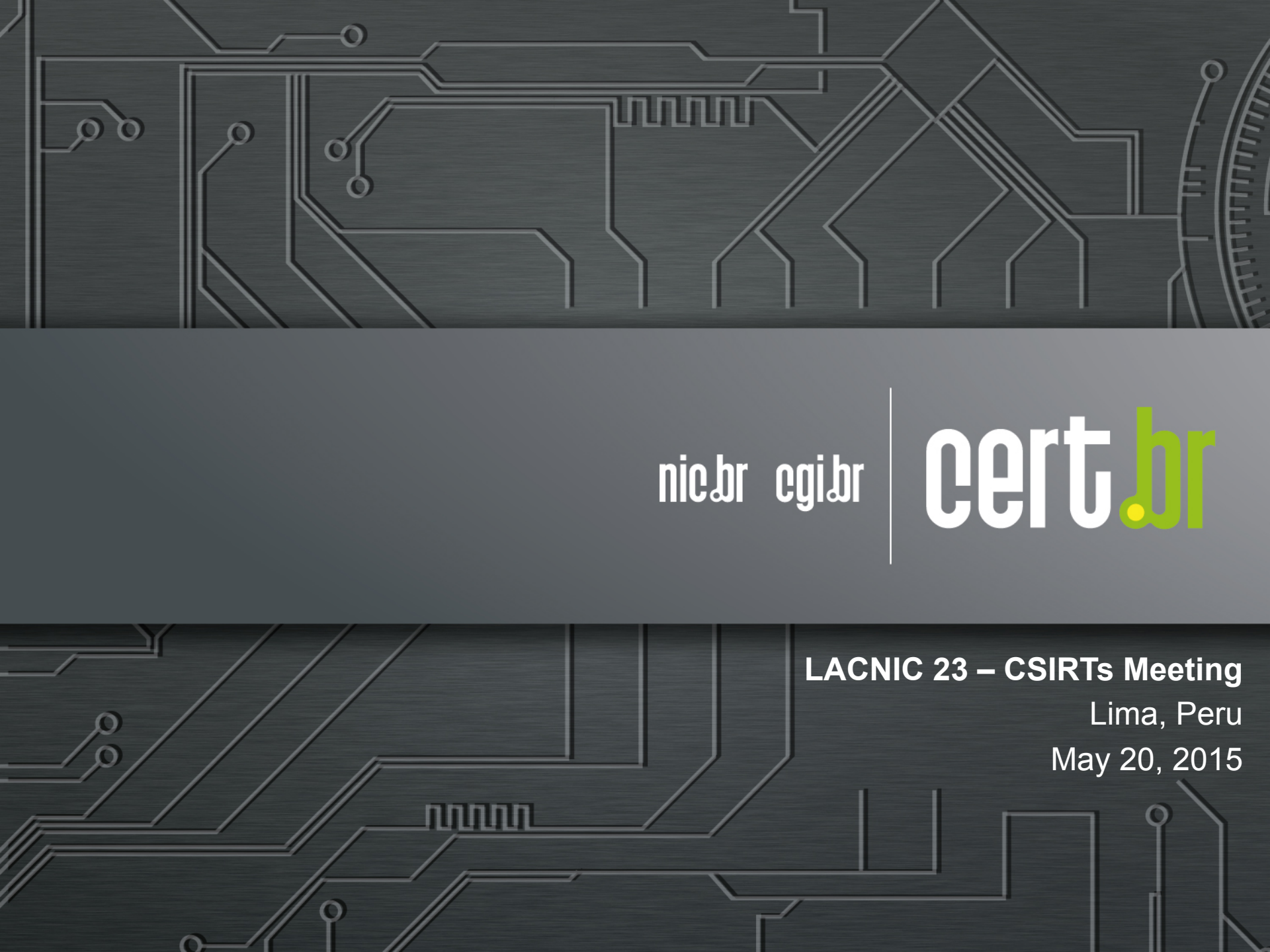

LACNIC 23 – CSIRTs Meeting

Lima, Peru

May 20, 2015

Practical Recommendations for Incident Notifications

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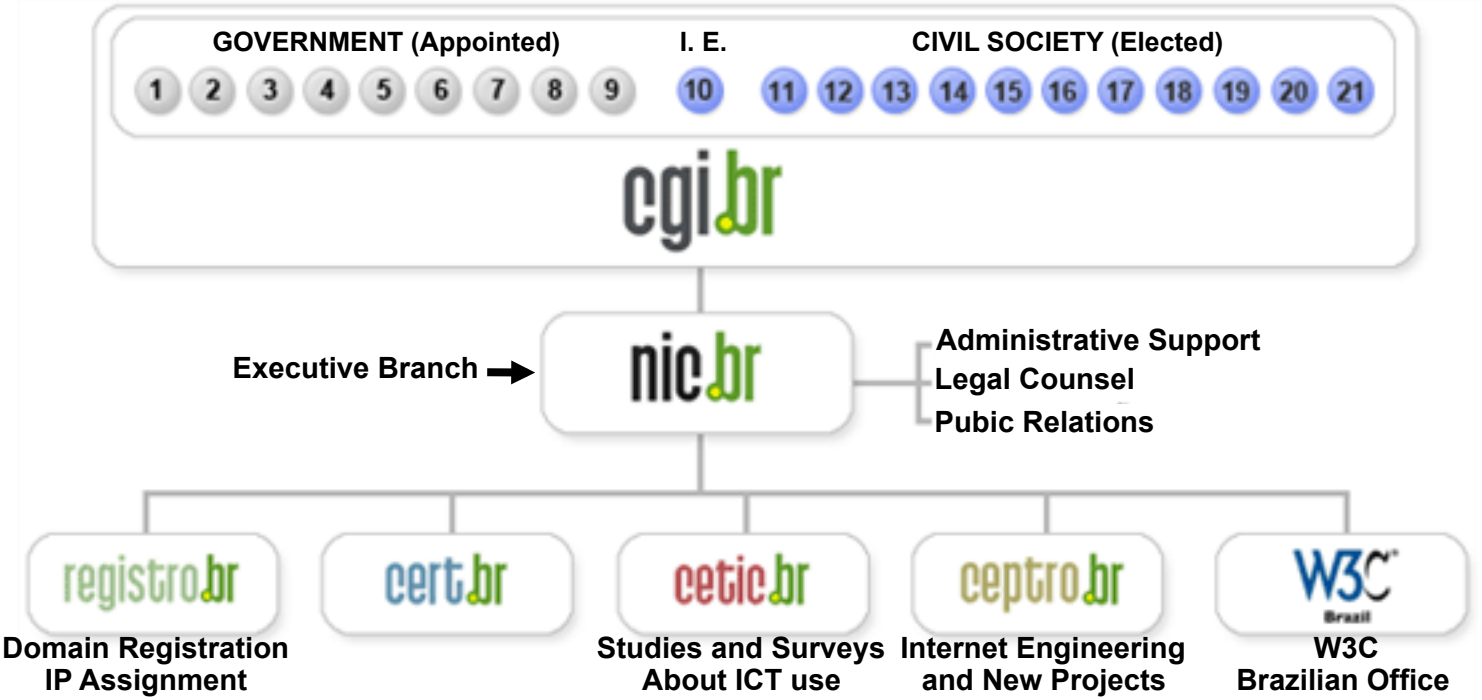
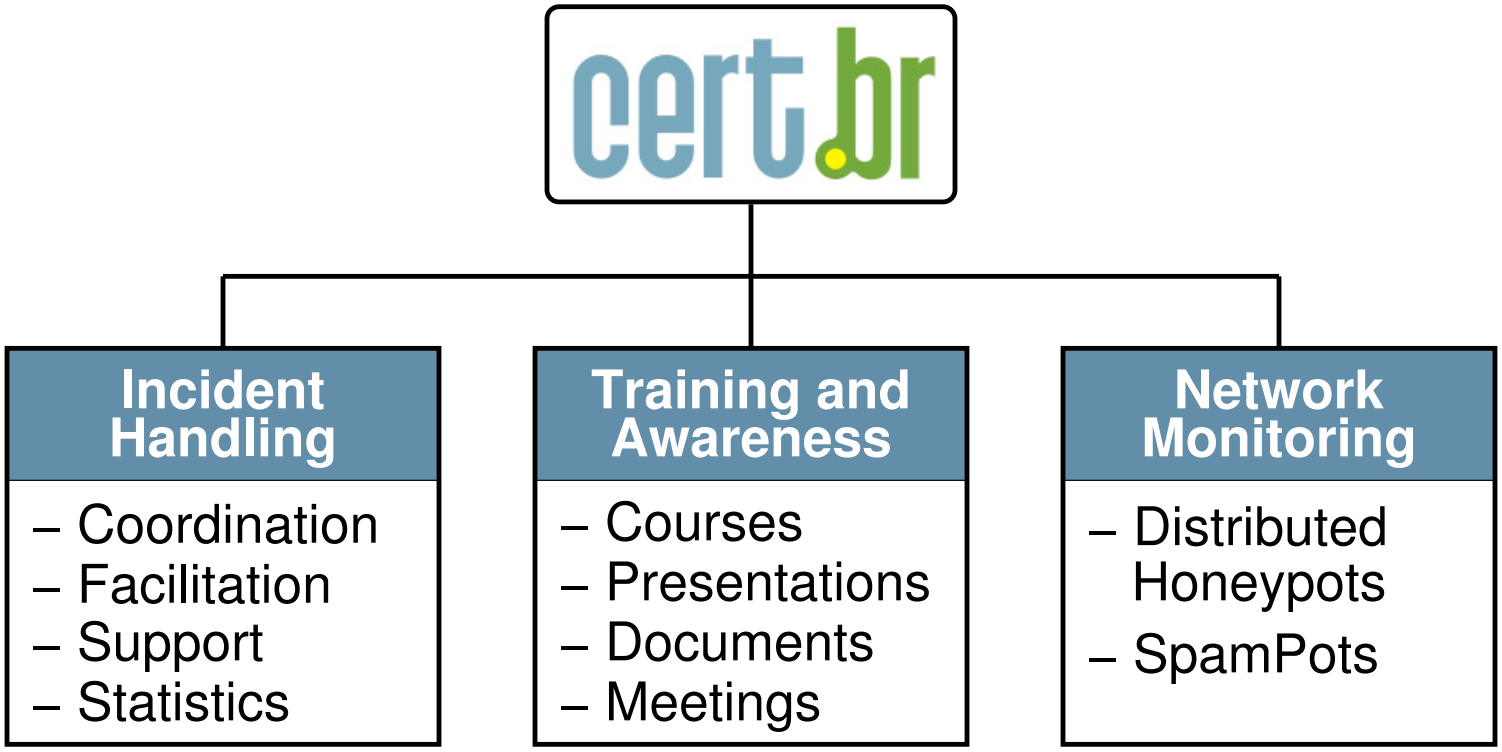
CGI.br and NIC.br Structure



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

CERT.br Activities



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Incident notifications: the challenge

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The challenge:

REPORTING

- Why should I notify?
- To whom?
- What information to include?
- How to find the right contacts?
- How to report?

HANDLING

- Who has sent this message?
- Why am I receiving this?
- What is the issue?
- Where are the evidences?
  - Logs saved as jpeg?!
  - No timestamps!
- What is expected from us?

How to make things better?

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How to make things better?

GOAL

- make the notifications more understandable and easier to write;
- turn the incident handling process more effective.

A public document (Creative Commons) covering:

- **Why to report incidents**
- **How to select the right contacts**
  - Understanding the incident
- **Where to look and how to search for contacts**
  - WHOIS search samples
- **How to write, format and send a notification**
  - DO's and DON'Ts
  - Set of templates

Some highlights

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Recommendations for Incident Notifications

- Notifying Security Incidents
- What to notify
- Whom to notify
- Searching contacts
  - WHOIS
  - CSIRTs
  - Creating and maintaining your own database
  - Top-Level Domains (TLDs)
- Notification methods and format
- What to include in a notification
- Appendix A – WHOIS Query Examples
- Appendix B – Notification Templates

What to notify

- **Some common incidents**
  - **Network scan, brute force, vulnerability exploitation attempt**
  - **Defacement**
  - **Rogue DNS**
  - **Malicious artifacts**
  - **Phishing**
    - **Regular / geolocation**
    - **Pharming**
  - **Denial of service attacks**
    - **Botnet attack**
    - **Amplification by service abuse**
  - **Sensitive data breaches**
  - **Malicious domains**

Whom to notify

- **Selecting the right contacts is key:**
  - **To avoid delays, discarded notification, inefficiency**
  - **Depends mainly on the characteristics of the incident**
    - **Not alerting the perpetrator**

- **Where to find contacts:**
  - **WHOIS databases => Appendix A – WHOIS Query Examples**
  - **CSIRTs contact lists**
  - **Your own database (creating and maintaining)**
  - **IANA root zone database (all TLDs and new gTLDs)**

What to include

DO's and DON'Ts:

- **Text format (avoid data in .jpg, .gif, .xls. .pdf, etc.)**
  - **Makes it difficult to read and automate**
- **Avoid long lines (easy reading)**
- **Timestamps:**
  - **Time zone matters**
  - **Synchronization is essential (use NTP)**
- **Sanitize data (e.g. PII)**
- **Use cryptography when sending sensitive information**
  - **PGP is the de facto standard among CSIRTs**
- **Avoid legal jargon, accusations and retaliation**
  - **Better try the cooperation approach**

What to include

General recipe:

- **Salutation**
- **Short introduction about who's writing and to whom the message is intended for**
- **Problem description including:**
  - **Concise explanation**
  - **Evidences (logs with time stamps and time zone information)**
  - **Additional information for clarification (when necessary)**
- **Expected actions**
- **Polite closure / thanks in advance**
- **Short signature**

Templates

- **Appendix B – Notification Templates**
  - **Preamble**
    - **template purpose**
    - **options that apply**
    - **how to use**
  - **Template with tags for tailoring / customizing**
    - **Portuguese and English**
    - **Spanish coming soon? ;-)**

- **Release date: first half of June**

Thank You

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