GARR-CERT

Roberto Cecchini

TF-CSIRT Meeting

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GARR-CERT

- The CSIRT of the GARR Network
  - active since June 1999;
  - a GARR service temporarily managed by the *Istituto Nazionale di Fisica Nucleare* (INFN).
- Constituency
  - all the Italian Academic and public Research Institutions connected to the GARR Network.
- Formal description (RFC2350) in **http://www.cert.garr.it/GARR-CERT-descr-rfc.html**
- TI “Level 2” team.

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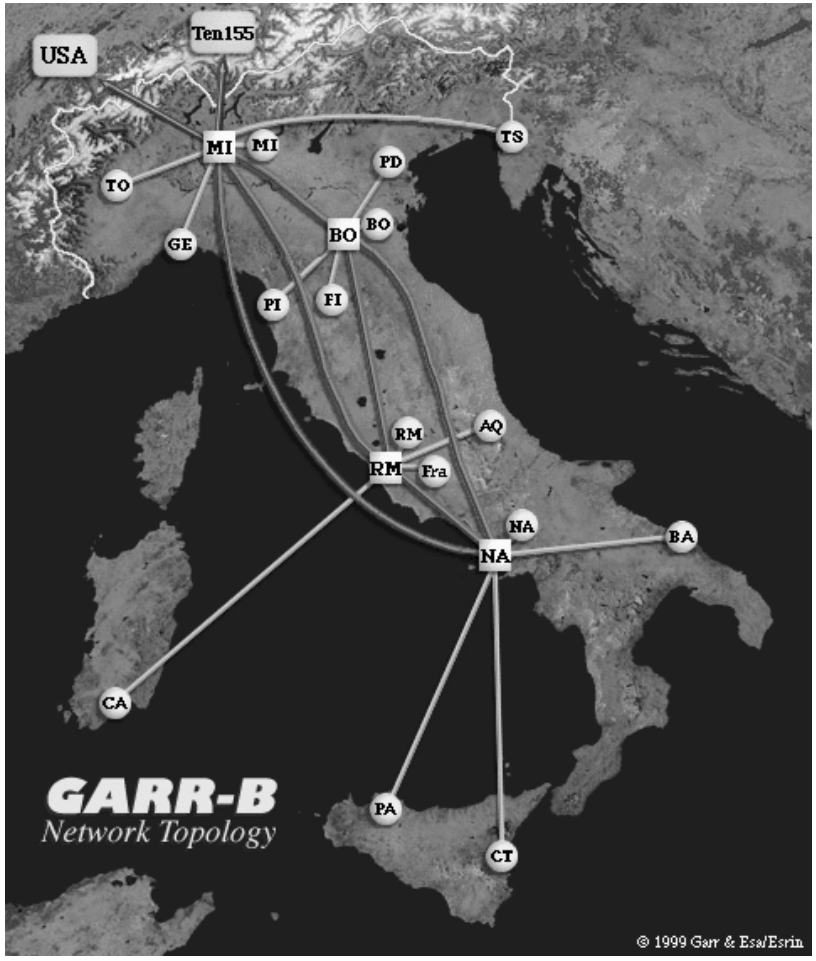
The GARR Network



- International Links (155 and 622 Mbps):
  - Milan-Frankfurt (Ten-155): 155 Mbps;
  - Milan-Geneva (Ten-155): 155 Mbps;
  - Milan-New York: 622 Mbps.
- Backbone (155 Mbps):
  - fully meshed between the4 transport nodes:
    - Milan, Bologna, Rome and Naples.
- Other links (2÷155 Mbps):
  - from local access points (≈ 300) to the transport nodes.
- Peering with private ISPs:
  - Milan (MIX);
  - Rome (RIX).
- 10915 C Classes.

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Mission Statement

- To assist constituency in:
  - implementing proactive measures to reduce the risk of computer security incidents;
  - responding to such incidents when they occur.
- To diffuse information on common vulnerabilities, trends, etc..
- To raise awareness of security problems.

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Proactive Activities

- Organization of technical meetings;
- scans (on demand):
  - port and vulnerability (**nmap**, **nessus**, **SARA**, etc.);
- checks (weekly):
  - incidents temporarily closed (filtered nodes);
  - ex open mail relay;
- ORBS database (monthly).

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Human Resources

- Members
  - operative kernel: 4 (2 full time, 1 for alerts);
  - “Liaison officers” and experts: 4.
- Site security contacts (≈ 250)
  - Access Point Managers (APMs);
  - main interlocutors: they receive all the mails sent to the site;
  - enormous differences between them in competence.
- Hours of activity:
  - Mon-Fri, 8:00-17:00

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External Interface

- Web server (**http://www.cert.garr.it/**)
  - documents;
  - alerts;
  - incident reporting form;
  - laws.
- FTP Server (on demand)
  - only for uploads of incident-related data (logs, programs, etc.);
  - files are immediately moved to “internal” machines.
- Mailing lists:
  - **cert@garr.it** (**abuse@garr.it**)
    - GARR-CERT members are the subscribers;
  - **apm@garr.it**
    - the site security contacts are the subscribers;
  - **sicurezza@garr.it**
    - security alerts and communications of general interest;
    - open to everyone (not only constituency).
- All mails sent are (PGP-)signed with the personal key of the sender;
  - the team key is used to sign pages on the web server and for incoming encrypted mail.

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Internal Interface

- Access restricted to the machines of the operative kernel.
- Incidents Database (**MySQL**)
  - dates, nodes, status, priority, e-mails, logs;
  - statistical data:
    - type (primary & secondary), hardware, OS, exploit (**CVE** when available), damages, tools.
- Internal web server (**Apache** + **mod_ssl** + **php**)
  - incident management;
  - list of contacts, templates, etc..
- Repository of incident-related data:
  - online until analysis is complete and incident closed;
  - on CD-ROM afterwards.
- Home-made procedures (60% php, 39% perl, 1% C).

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Incident Opening

- An incident
  - involves a GARR node;
  - implies a violation of some “rule” (laws, AUPs, netiquette);
- When:
  - each report received if obeys the rules above and not blatantly false (e.g. a GARR node found in a faked spam mail header): the report is kept in every case;
  - log analysis (e.g. passwords in a sniffer log);
  - proactive checks (old incidents, ORBS).
- Incidents are stored in the database, classified and prioritized (RFC2350):
  - one unique code (date + progressive number) for each couple victim–attacker (node or network).
- E-mails are sent to all the involved parties
  - except automatic mail from *SpamCop* and similar.

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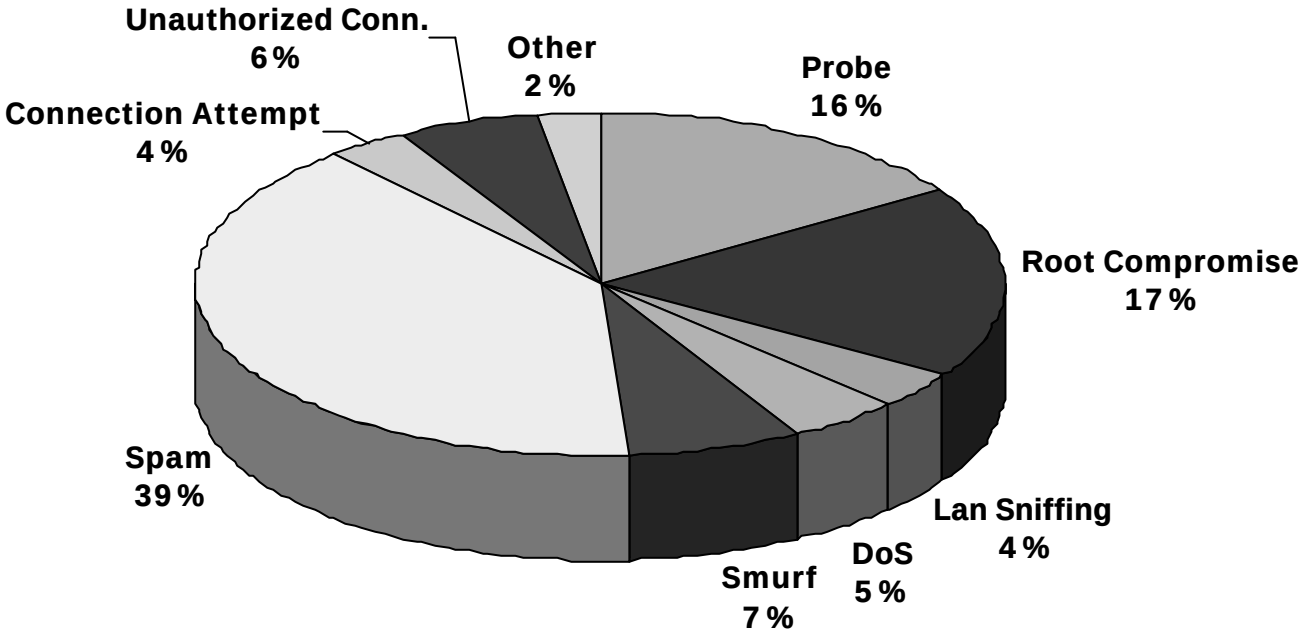
Incidents Closure

- Incidents originating from GARR nodes:
  - must be solved (at least temporarily) in predefined maximum times (according as severity);
  - if it doesn't happen, GARR-CERT asks the local APM to filter the node on the access router;
  - if the APM doesn't intervene, GARR-CERT asks the NOC to filter the node on the border router.
  - During year 2000:
    - requests to APMs: ≈ 70;
    - requests to NOC: ≈ 30.
- Incidents originating from non-GARR nodes which don't answer our mails are usually closed after a predefined time.
- Mails with some details about the actions taken are sent to all involved parties.

Incidents (by type)

From 1/1/2000 to 31/12/2000



Total: 1381

(e-mails handled: 10130)

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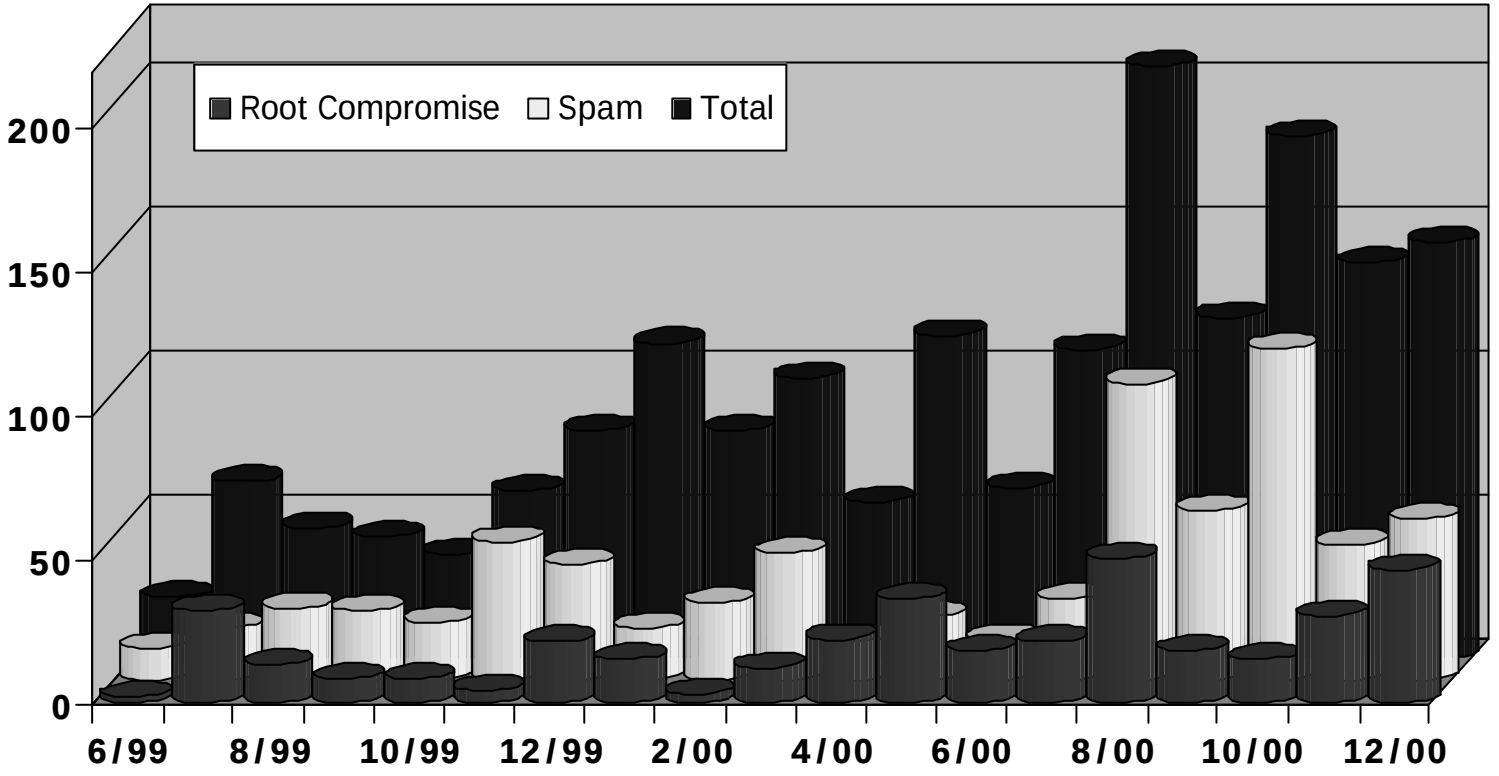
Incidents (by month)



Root Compromise includes *Lan Sniffing* and *DoS*