

# Fast overview about the CERT-TCC Helmi Rais CERT-TCC Team Manager Helmi.rais@ansi.tn

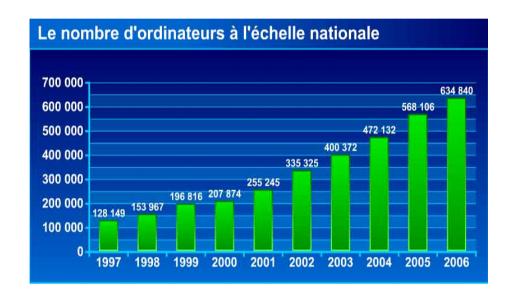


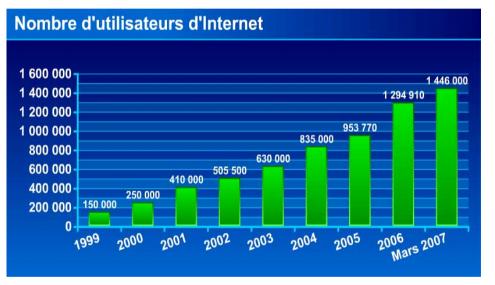


## Les IT en Tunisie: Quelques Statistiques



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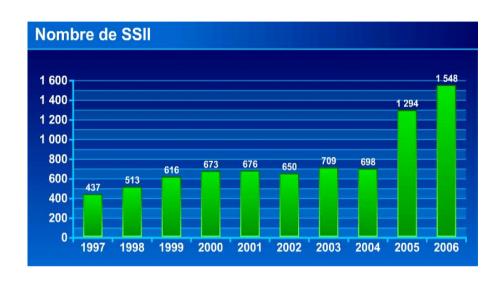




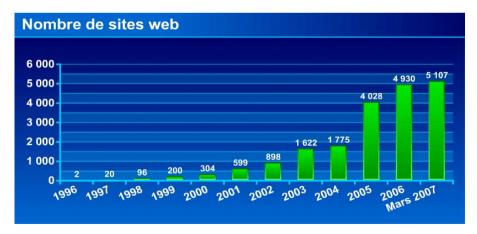
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## a fast Historical Overview

□ end <u>1999 :</u> Launch of a <u>UNIT ( a "Micro-CERT")</u> , specialized in IT Security
Objective:
- sensitize policy-makers and Technical staff about security issues.
- Assists in Monitoring the security of highly critical national applications and infrastructures
+ creates a first Task-force of Tunisian Experts in IT Security
☐ From End 2002 (" certification of the role of IT security as a pillar of the « Information Society »):
The unit starts the establishment of a strategy and of a National Plan in IT Security (national survey, for fixing: priorities, volume of actions, needed logistic, supporting tools, .).
☐ January 2003 : - Decision of the Council of Ministers, headed by the President, and dedicated to informatics and IT Security , of :
☐ The creation of a National Agency, specialized in IT Security
(The Tool for the execution of the national strategy and plan)
☐ The Introduction of Mandatory and Periodic Security audits
(Pillar of our strategy)
☐ The creation of a "body of certified Auditors" in IT Security
+ A lot of accompanying measures (launch of masters in IT security)



#### In addition of existent Laws:

- ∠ Law on consumer protection and respect of Intellectual property (Law N°1994-36)
- ✓ February **2004**: Promulgation of an "original" LAW, on computer security (Law N° 5-2004 and 3 relatives decrees):

**Obligation** for national companies (<u>ALL public</u> + "big" and sensitive <u>private</u> ones) to do **Periodic (Now annually) Security audits of their IS**.

- Organization of the field of Security audits
  - → Audits are Made by **CERTIFIED** auditors (from the private sector),
  - → definition of the process of certification of auditors
  - → definition of the auditing missions and process of follow-up (ISO 1 77 99)
- Creation and definition of the Missions of the National Agency for Computer Security (which does not deal with National Security & Defense issues) (created under the Ministry of Communication Technologies)
- ➤ Obligation to declare security Incidents (Viral, mass hacking attacks, ...) that could affect others IS, with guarantee of confidentiality, by law.



 CERT-TCC is a sub-structure of the National Agency for Computer Security

CERT-TCC is the Gov Tunisian CERT



# CERT-TCC

Watch, Warning & Awarness Team

Investigation & Incident Response Team

**Information Sharing and Analysis Center** 



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# CERT-TCC

Watch, Warning & Awarness Team

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**Information Sharing and Analysis Center** 





- Information and alert
- Education and awareness
- Enterprise support (security self-assessment)
- Electronic Surveys on security and Participation in International organizations
- Training





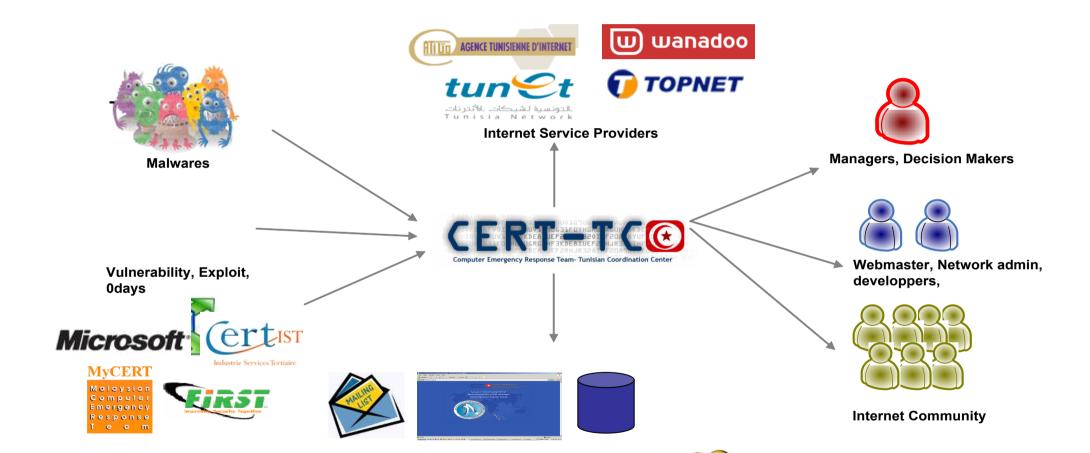
### Information and Alert

#### **Threat alert:**

- Analyse the state of Internet security and convey that information to the system administrators, network managers, and wide public in the Internet community.
- Monitor sources of vulnerability information and regularly sends reports and alerts on those vulnerabilities (mailing-lists, publication on the web site).
- We analyze the potential vulnerability and try to work with other CERTs and technology producers to track the solutions to these problems. We also make vulnerability information widely available through a vulnerability database.





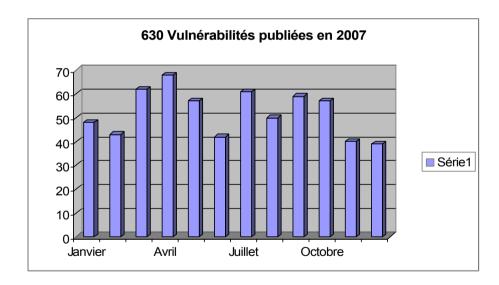


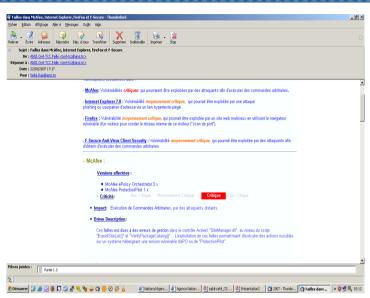
Mailing List, Web site, Data Base, Call Center

Computer Emergency Response Team - Tunisian Coordination Center

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- 630 Vulnerabilities published in 2007
- 25 Malwares published in 2007







#### 13 Minor Alerts in 2007

- •Microsoft Word Oday (CERT-TCC/Vuln.2007-045)
- •Sun Solaris Worm (CERT-TCC/Vuln.2007-66)
- •Microsoft Windows DNS Service ( CERT-TCC/Vuln.2007-190)
- •Firefox et Netscape Navigator Oday (CERT-TCC/Vuln.2007-368)
- •Propagation of "Storm Worm" "Zhelatin.LJ (CERT-TCC/MAL-2007-009)
- •RSTP QuickTime Vulnerability (CERT-TCC/Vuln.2007-577)
- •Netmonster: The First Virus « made in Tunisia » (CERT-TCC/Malw.2007-023)



- More than 7000 <u>Voluntary</u> subscribers
- More than 800 calls Monthly served
- More than 600 e-mails sent Since 2005
  - Vulnerabilities
  - Malwares
  - Spam &Hoax
  - Open Source
  - Books
  - Tools
  - Announces





## Information and Alert

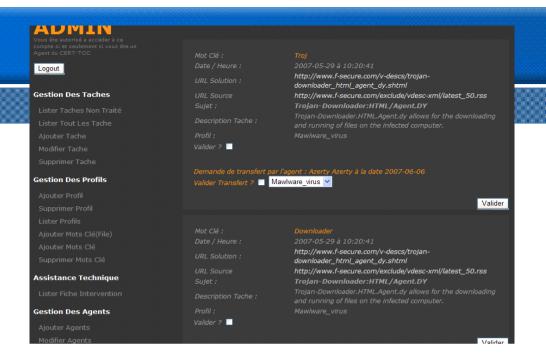
#### Information:

To increase awareness of security issues and help organizations to improve the security of their systems, we collect and disseminate information through multiple channels (mailing-lists, World Wide Web site, brochures and Knowledge bases, News).

#### More than 30 Guides and Manuals

Home Users
Open Source Solutions
Best Practices
Security Policy
Security Chart
Technical Documents / Tips
Technical specification models for security solution acquisitions
Tender of offers for Security Audit Missions







**Internal Workflow Solutions** 

رطش (Chater (Smart in Arabic)

RSS Reader, Filter, Task Management

→ Free and Open Source



**Vulnerability and Malwrae Database** into CERT-TCC Back Office Website





## Awareness Activities

- Decision Makers
- CSOs
- Professionals
- Technicians / Engineer
- Trainers
- Students
- Tunisian Cyber Community
- Home Users
- Journalists
- Jurists

## Hacking Simulation

**Trojans** 

**Vulnerability Exploits** 

Phishing attacks

XSS

**SQL** Injection

**Password Sniff** 



#### Awareness

- Publications: we also reproduce or develop and publish free electronic publications (guides, ..),
  to show administrators how to protect systems and networks against malicious and inadvertent
  compromise.
- **Media information:** We also work with the news media, and give them the necessary information material and support to raise the awareness of a broad population to the risks they face on the Internet and steps they can take to protect themselves.
- Presentations: We organize and regularly give presentations at conferences, workshops, and meetings, as an excellent way to help attendees to learn more in the area of network information system security.



Weekly participation in 8 National Radios and 1 TV Program







2008 Calendar



8 aw booklets



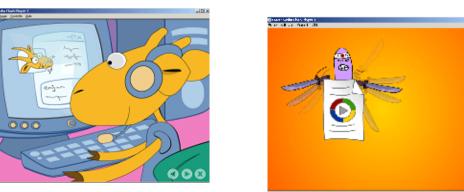


## Youth and Parents Awareness

- Acts for raising **Youth and parents awareness**, In Collaboration with specialized centers and associations:
  - Preparation of a first pack of short (awareness) courses for Primary school.
  - Starts the Development of special pedagogical material for childrens&parents: 3 "Cartoons", Quizs
- Development of a special rubric in the Web site and Inclusion of a special Mailing-List rubric for parents (Parental control tools, risks, ..)

- Development of special awareness tools (Cdroms, Cartoons, Games,

Booklets...)





- Acting in Raising awareness about the benefits (&limits) of the deployment of open-source tools.
- Formulation (funds) of **4 projects for the development of security tools (from open-source)** for the **private sector** (including improvement of the system "Saher").
- Definition of **5 federative projects of Research&Development** for **academic laboratories** (under the supervision of the **Ministry of Scientific Research**)
- Collaboration, with the university for the launch of a **Research laboratory** specialized in open-source security tools (Loan from the World Bank).

CERT/TCC is Acting for sensitizing young investors (by providing "Markets"),to:

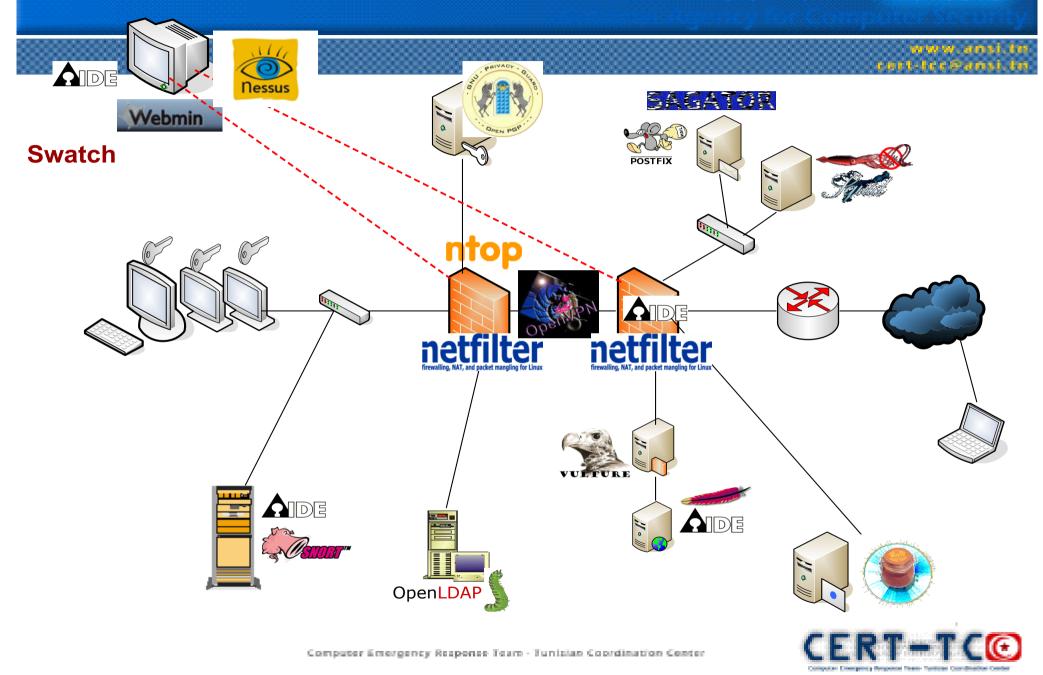
<u>First Step</u>: Provides support for open-source tools <u>deployment</u> (installation, training, "maintenance")

<u>Then</u> → Customization of open-source solutions (for clients specific needs )

End → Launch of real Research/Development activities









## Training

Our urgent and big problem is the present lack of specialized experts and trainers in the various fields of information system security. This CERT is first concentrated on the organization of trainings (in Tunisia and in International institutes) for trainers in the field of specialized Information systems security trends and also for the judicial and investigation staff.

Afterwards, we organize very specialized training courses in Tunisia (and some in foreign centers) for technical staff and managers of computer security incident response teams as well as for system administrators of highly critical systems.





#### Training

- Network perimeter security technics (Secure architectures, Firewalls, IDS, secure dial-up servers, content gateways and proxies, ..).
- Internal Network security organization and technics (security policy development, security plan development, tools: Distributed firewalls, Anti-virus gateways, PKI, ..).
- Technical basis for intrusion prevention (identifying and preventing intrusions and security flaws).
- Fundamentals of Incident Handling and overview of a Computer Security Incident Response Team
- Creating and Managing a Computer Security Incident Response Team
- Methodologies of security self-assessment.
- ISO 17799 and ISO 27000 Families.
- Wireless Security
- CBK Security
- Open Source Solutions
- Intergrating Security into SDLC
- Specialized courses for judicial and investigation staff



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## Incident handling and assistance

#### **CERT/TCC** provides:

- o A CSIRT team in charge of providing (free of charge) Assistance for Incident Handling
- o Call-center, available 24Hours/24 and 7 days/week

#### Article 10 of the Law No. 2004-5 relative to IT security

(Public & Private institutions, <u>must</u> inform the National Agency for Computer Security about any Incident, which can affect other Information Systems)

#### Article 9 of the Law No. 2004-5 relative to IT security Stipulate that

The employees of the National Computer Security Agency and security auditors <u>are Responsible</u> <u>about the preservation of confidentiality</u> and are liable to penal sanctions

- → Private and public organizations should trust the CERT/TCC
- → Call for assistance
- A "Citizen's assistance service", To which Home users can bring their PC to solve security problems or install security tools (anti-virus, PC firewall, anti-spam, ..), free for domestic use.
- Acting for the emergence of corporate CSIRT in some sensitive sectors (E-gov, E-Banking → Energy, Transportation, Health )





## **CSIRT**

Investigation team

- Computer forensics
- Evidence analysis
- Investigation (Log, Hard Drive, memory dump, ...)

Intervention team

- On-site
- Incident handling process
- Evidence collection



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## ISAC "Saher"



A Watch- center (based on open-source solutions), which permits to monitor the National Cyber-Space security in Real time

- → For the early Detection of **potential** threats and evaluation of their impact. (First prototype, deployed at the level of ISP, during phase 2 of WSIS)
- → For Vulnerabilities exploitation and malwares propagation evals

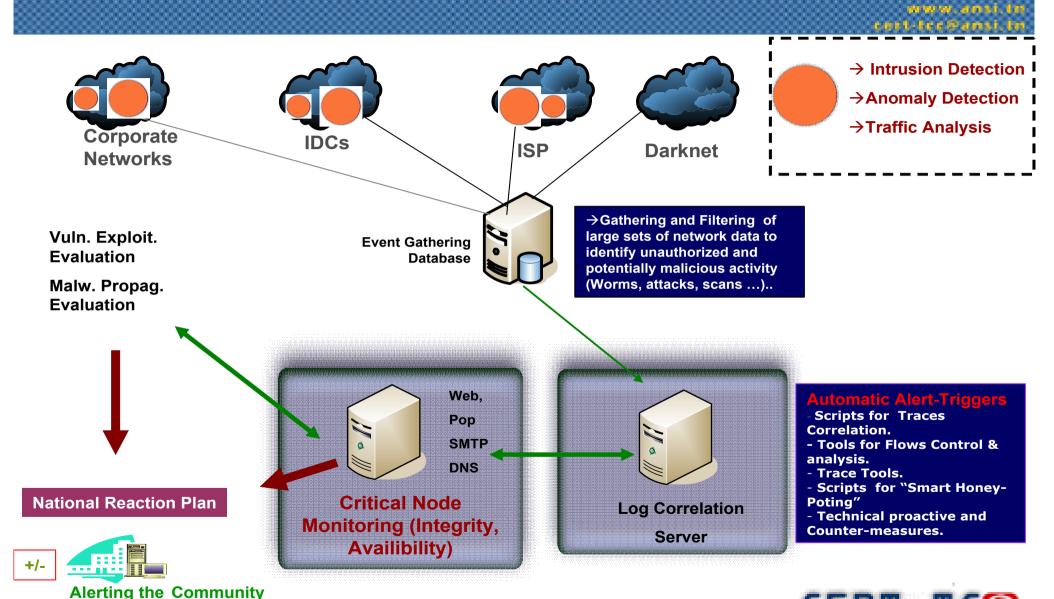


## « Saher » Architecture

System developed based on Web defacement **Saher – Web**: Tunisian Web Sites DoS Web Deterioration of web access monitoring Souce tools <u>Saher – SRV</u>: Internet services Mail Bombing availability Breakdown of DNS servers • DNS POISONING... monitoring (Mail server, DNS,...) a set of Open **SAHER-IDS: Massive attack detection**  Viral attack Intrusion • DDoS • ...



#### N.A.C.S





## NRP National Reaction Plan

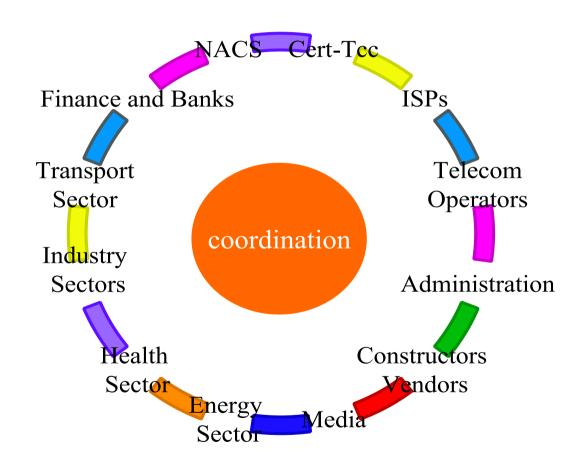




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- "Formal" Global Reaction Plan.
- Establishment of **Coordinating Crisis Cells** (ISPs, IDCs, Acess Providers).

With CERT/TCC acting as a coordinator between them





#### was deployed 7 times,

During Sasser& MyDoom worms attack, during suspicious hacking activity and, proactively, during big events hosted by Tunisia (only with ISPs and telecommunication operator)













**ONU Conference about Terrorism** 

