Securing Europe's Information Society

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Agenda

* **ENISA overview**
* Challenges
* EU policy on NIS
* Overview of current activities
* Examples for current activities
* Outlook
* Conclusions

ENISA – overview

★ Created in 2004

★ Located in Heraklion / Greece

★ Around 30 Experts

★ Supports EU institutions and Member States

★ Facilitator of information exchange between EU institutions, public sector & private sector

★ Activities:

    ★ Advising and assisting

    ★ Collecting and analysing

    ★ Promoting methods

    ★ Raising awareness

www.enisa.europa.eu

Focus

- ★ ENISA assists Member States and the Commission in global issues that affect the European Community as a whole

- ★ This is an advisory role and the focus is prevention and preparedness

- ★ ENISA does not have any operational responsibilities either within the EU institutional framework or with respect to Member States

- ★ ENISA has no special role in the security process protecting EU institutions

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NIS Challenges

- ★ Complexity of global networks is increasing
- ★ Number of security breaches is growing, leading to financial damage and undermining user confidence
- ★ The economy of Europe is at stake if we do not manage security properly
- ★ ICT systems are essential for economic and societal development
- ★ We need to achieve a collaborative approach on increasing NIS to enable and enhance economic and societal development in priority areas, such as:
    - ★ Improving Europe's critical information infrastructure protection (CIIP)
    - ★ Enhancing Europe's early warning and incident response capabilities
    - ★ Increasing user trust and confidence

NIS Challenges – cont.

★ We need to achieve a collaborative approach on increasing NIS to enable and enhance economic and societal development in priority areas, such as:

- ★ Improving Europe's critical information infrastructure protection (CIIP)
- ★ Enhancing Europe's early warning and incident response capabilities
- ★ Increasing user trust and confidence

because

"***Europeans will not embrace technology they do not trust - the digital age is neither "big brother" nor "cyber wild west"***

(Digital Agenda for Europe, COM(2010) 245, 19.05.2010)

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Network and Information Security (NIS)
The EU Policy Framework

2004: Establishment of the European Network and Information Security Agency - ENISA

2006: European Commission Strategy for a Secure Information Society - COM(2006)251

2007: Council Resolution on a Strategy for a Secure Information Society in Europe [2007/C 68/01]

2008: Extension of ENISA's mandate and launch of a debate on increased NIS

03 2009: European Commission's proposal for an Action Plan on Critical Information Infrastructure Protection - CIIP -

11 2009: Adoption of the revised telecoms regulatory package integrating provisions on security

12 2009: EESC Opinion on the Communication on CIIP

12 2009: Council resolution on a collaborative European approach to NIS [2009/C 321/01]

Network and Information Security (NIS)
Key policy documents

2009:   European Commission's proposal for an Action Plan on Critical Information Infrastructure Protection (CIIP)

http://ec.europa.eu/information_society/policy/nis/strategy/activities/ciip/index_en.htm

11 2009:   Adoption of the revised telecoms regulatory package integrating provisions on security

http://ec.europa.eu/information_society/policy/ecomm/tomorrow/index_en.htm

12 2009:   Council resolution on a collaborative European approach to NIS [2009/C 321/01]

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:321:0001:0004:EN:PDF

05 2010:   Commission's proposal for a modernized NIS Policy in the EU

Digital Agenda

http://ec.europa.eu/information_society/digital-agenda/index_en.htm

DIGITAL AGENDA

★ NIS "masterplan" for the next 20 years

★ Proposes action areas for a European information society (like interoperability, standards, research, access and ...)

... Trust and security! High level goals:

- Modernise and enhance ENISA
- Enhance cooperation of CERTs on national and European level
- Provide CERT services for European institutions
- Support EU-wide cyber security preparedness exercises
- Enhance prevention and combating cybercrime

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ENISA's Role in Europe

* Centre of Expertise
* Supports EU institutions and Member States
* Facilitator of information exchange between EU institutions, public sector & private sector
* Activities:
  * Advising and assisting
  * Collecting and analysing
  * Promoting methods
  * Raising awareness

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ENISA's Mission

Securing Europe's Information Society by acting as a pacemaker for NIS

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ENISA's Current Activities

★ ENISA's work plan is based around a number of Multi-Annual Thematic Programs (MTPs)

★ The current set of MTPs was launched in 2008. They cover the following areas:

  ★ Improving resilience in European networks
  ★ Developing and maintaining cooperation models
  ★ Identifying emerging risks

★ These MTPs are scheduled to finish in 2010

Improving resilience in European networks

★ Goal : To improve Resilience in European eCommunications Networks & Services

★ This work consists of three phases:
  ★ Stock-taking of regulatory/policy environments and provider measures
  ★ Identification of good practices and gap analysis
  ★ Support for deployment

★ The scope of the work covers:
  ★ Policy issues
  ★ Deployment issues
  ★ Technical issues (e.g. DNSSEC)

Cross-border cooperation

* Goal : To increase cooperation between Member States to reduce differences in capability between Member States in the area of NIS

* ENISA develops and supports cooperation models in pre-defined areas

* Currently, these areas are:
  * Awareness Raising
  * Reinforcing national / gov. CERTs
  * European NIS good practice brokerage

Emerging Risks

* Goal: To enable stakeholders to better identify and understand Emerging and Future Risks in the area of NIS

* Scenarios submitted by public sector and private sector stakeholders

* Expert groups are used to validate and analyse submitted scenarios from a risk standpoint

* Will be supplemented by the creation of a
  EFR Knowledge Base

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Activity example:
Reinforcing national / governmental CERTs

The objectives are:

★ Definition and further development of a set of baseline capabilities for national / governmental CERTs in the Member States

★ Establish national / governmental CERTs in every Member State

★ Offer or support activities to help teams to reach (and go beyond) the baseline

★ Enhance cooperation on national and European level

Activity example:
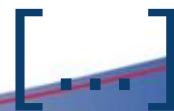# Reinforcing national / governmental CERTs

Means
* ★ *Support setting up*
* ★ *Training*
* ★ *Exercises*

Support in
* ★ *Reaching out to (new) constituencies (EISAS)*
* ★ *Enhancing existing services*
* ★ *Extension of services*
* ★ *Information sharing and cooperation*
* ★ *Etc.*

Activity example: Reinforcing national / governmental CERTs

| 2005: Stocktaking | 2006: Setting up & Cooperation | 2007: Support Operation Quality Assurance | 2008: CERT Exercises | 2009: CERT Exercises Pilots | 2010: CERT Baseline Capabilities |

Activity example:
National and pan-European exercises

The objectives are:

* First pan-European exercise in 2010
* Collaborate with EuroCybex towards preparing an advanced exercise in 2011
* Support the implementation of the Good Practice Guide on National Preparedness Exercises by Member States
* Develop a robust framework for running Pan European (and multinational in general) exercises with long term strategic objectives

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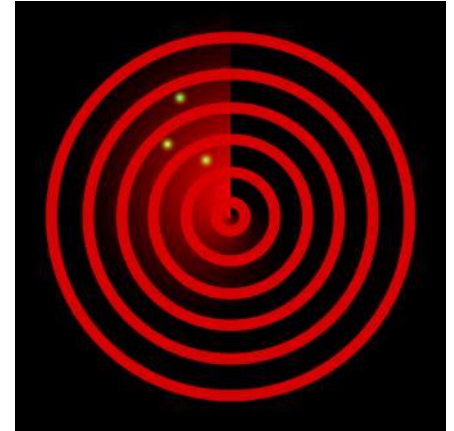
Activity example:
Awareness Raising

- ★ Enhance information exchange on awareness raising among national / governmental level organisations

- ★ Establish a task force for information security awareness within the EU institutions and bodies.

- ★ Continue to address the challenges of young generation and family online safety.

- ★ Continue to build the AR Community

- ★ Support the Commission and Member States in establishing a European Security week.

Activity example:
Cloud Computing for governments

★ In 2009, ENISA published the cloud computing risk assessment and cloud assurance framework

★ In 2010, ENISA is performing an analysis of Government Cloud initiatives from the security and resilience perspective

★ In 2011 this will be followed up with an initiative which pilots the use of these criteria within European Government procurement criteria

★ Conference on cloud assurance in Q2 2011

★ Pilot study with member states, by Q4 2011

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Outlook 2011: Situation awareness for CERTs
(Beware: under discussion!)

The objectives are:

★ Stock taking of available situation awareness mechanisms to define the "state of the art" of "early warning" for NIS.

★ Analysis of results - the benefits and shortcomings will be assessed and potential further developments identified.

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Outlook 2011: Cross-border CERT cooperation
(*Beware: under discussion!*)

The objectives are:

★ Examine barriers and incentives for cross-border collaboration and information sharing (i.e. legal issues, data protection, etc.)

★ Examine "operational gaps on European level"

★ Examine "operational redundancies and synergies"

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Our Vision

* Everybody is involved.
  * All actors understand the role they are expected to play and are sufficiently knowledgeable to perform this role.
* Actions performed by the different actors are mutually reinforcing.
  * This is the principle of defence in depth.
* The approach is sufficiently scalable and flexible to cope with rapidly evolving constraints.
  * Approaches that are too rigid and that cannot adapt to changes in the socio-economic environment will not survive.

Conclusions

* We need to move towards a situation in which all actors recognise and proactively manage risks.

* Methods and tools should be flexible and scalable. They should be capable of delivering tangible results with reasonable investment.

* Infrastructure should offer true end-to-end security.

* By closely following emerging risks, aligning research with these risks, and deploying research results faster, we will be able to securely leverage new technologies earlier.

* New concepts need to be quickly understood and leveraged to improve current security models.

* Achieving coherence and consistency over time will be a major challenge.

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