



Emerging Threats and Actors

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Mobility

- Problem
 - Mobile devices are ubiquitous and always connected
 - Limited compute resources and battery power prevent users for running full-fledged security software
- Research Directions
 - New tools and techniques for protecting such devices
- Impact
 - Better protect citizens
 - Adoption for commercial use

Privacy

- Problem
 - Privacy issues due to data aggregation:
 - Cloud, e-meters, social networks, public info, ...
- Research Directions
 - New techniques to protect users against sophisticated privacy attacks and prevent correlation of public records
- Impact
 - Increase confidence of EU citizens in privacy-preserving use of ICT

Emerging Technologies

- Problem
 - New services and technologies often released before the research community has had a chance to study their security implications
 - Clouds, SCADA, social networks, smart meters, web services
- Research Directions
 - Sponsor activities and collaborations between industry and academia
- Impact
 - Increase adoption of such services without risking security failures

Usable Security

- **Problem**
 - Human factors, insider problem, ...
 - Engineers don't care/know about computer security. Users give permissions and click on everything
 - The impact of new defense techniques greatly depends on the assumption made on the final users and on their involvement in the security process
- **Research Directions**
 - Study usability of security countermeasures
- **Impact**
 - Increase the end-user adoption of security-related software and monitoring systems

Targeted Attacks

- **Problem**
 - Current defense tools, policies, and infrastructures fail in front of attacks designed to focus against a specific target instead of blindly targeting the entire community
 - From malicious hardware to targeted spam
- **Research Directions**
 - Collect and analyze data associated with targeted attacks
 - New defense approaches that take into account alternative factors (such as monetization)
- **Impact**
 - Significant improvement towards the protection of Critical Infrastructures



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