Overview on Activities Related to Academic Utilization

D6.1-I
About the ASMONIA project

Given their inherent complexity, protecting telecommunication networks from attacks requires the implementation of a multitude of technical and organizational controls. Furthermore, to be fully effective these measures call for the collaboration between different administrative domains such as network operators, manufacturers, service providers, government authorities, and users of the services.

ASMONIA is the acronym for the German name* of a research project that aims to improve the resilience, reliability and security of current and future mobile telecommunication networks. For this purpose the ASMONIA consortium made up of several partners from academia and industry performs a number of research tasks, based on the specific expertise of the individual partners. The project running from September 2011 till May 2013 receives funding from the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF). Various associated partners further contribute on a voluntary basis.

* The full name is "Angriffsanalyse und Schutzkonzepte für MObilfunkbasierte Netzinfrastrukturen unterstützt durch kooperativen InformationsAustausch" (Attack analysis and security concepts for mobile network infrastructures, supported by collaborative information exchange).

Partners:

Cassidian Systems
ERNW Enno Rey Netzwerke GmbH
Fraunhofer Research Institution for Applied and Integrated Security (AISEC)
Hochschule Augsburg
Nokia Siemens Networks GmbH & Co KG
RWTH Aachen

Associated Partners:

Federal Agency for Digital Radio of Security Authorities and Organizations (BDBOS)
Federal Office for Information Security (BSI)
Deutsche Telecom AG (DTAG)

For more details about the project please visit www.asmonia.de.
Executive Summary

The purpose of this document is to collect and summarize ongoing and finished work with respect to the academic utilization.

Each of the partners involved in the ASMONIA project devoted some resources to utilizing the results achieved during the project’s runtime. This includes publications at various conferences, the organization of project workshops, talks or posters at external events, as well as the thematic integration into teaching curricula.
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1 Publications

This chapter presents the publications in conferences proceedings, academic journals, and other written formats of the ASMONIA project as of January 2012.

- “Tailored Concepts for Software Integrity Protection in Mobile Networks”, Manfred Schäfer (NSN) and Wolf-Dietrich Moeller (NSN), Germany, in International Journal on Advances in Security Volume 4, 2011 [SM2011]
2 External Workshops
This chapter presents the workshops of the ASMONIA project as of January 2012.

2.1 1st External ASMONIA Workshop
Date: 29.3.2011
This external workshop has been organized by ERNW and was held in conjunction with the Troopers 2011 IT-Security conference in Heidelberg.

The slide set of each talk can be found on the ASMONIA website www.asmonia.de

The agenda can be seen below:

- **ASMONIA Overview and Reference Architecture for Collaborative Information Exchange**, Hans Hofinger, Fraunhofer AISEC, Garching near Munich, Germany
- **Cyber Fed Model - a Collaborative Threat Mitigation Tool**, Scott C. Pinkerton, Argonne National Laboratory, Chicago, IL, US
- **Input for the Local Security Overview and Dashboard**, Heiko Kirsch and Michael Hoche, Cassidian Systems, Friedrichshafen, Germany
- **FIDeS: Event Correlation based on Knowledge-Supported Machine Learning**, Mirko Horstmann, Technologie-Zentrum Informatik und Informationstechnik, Bremen, Germany
- **Integrity Protection for 4G Devices and NW Elements**, Manfred Schäfer and Sascha Wessel, Nokia Siemens Networks and Fraunhofer AISEC, Munich, Germany
- **Femtocell: Femtostep to the Holy Grail**, Ravishankar Borgaonkar and Kevin Redon, T-Labs, Berlin, Germany
- **Future Directions in Malware Detection on Mobile Handsets**, André Egners, RWTH Aachen University, Germany
- **Project AMSEL: Automatically Collect and Learn to Detect Malware**, Michael Meier, Technical University Dortmund, Germany
- **Worldwide Observatory of Malicious Behaviours and Attack Threats**, Apostolis Zarras, Institute of Computer Science, Foundation for Research and Technology - Hellas (FORTH), Greece
- **Usage Scenarios of Elastic Systems in a Telco Infrastructure**, Mark Gall, Fraunhofer AISEC, Garching near Munich, Germany
- **Cloud Networking Research in SAIL Project**, Dominique Dudkowski, NEC Europe Ltd., Heidelberg, Germany
- **Threats and risks for 4G Mobile Communication Networks and Terminals**, Peter Schneider, Nokia Siemens Networks, Munich, Germany
3 Posters & Talks
This chapter presents the posters and talks of the ASMONIA project as of January 2012.

3.1 Posters

3.2 Talks
• "Innovative Schutzkonzepte für Mobilfunkbasierte Netzinfrastrukturen", Peter Schoo (Fraunhofer AISEC), Kolloquium Universität der Bundeswehr München, 2011
• Sicherheit hat ihren Preis: Modellierung des Einflusses von Sicherheitsmechanismen auf Werteflusses in Informations- und Kommunikationssystemen”, Heiko Kirsch (CASSIDIAN), Michael Hoche (CASSIDIAN), in Essener Workshop zur Netz sicherheit 2011 (EWNS11) [HK2011]
4 ASMONIA Website

Relevant external information concerning the ongoing project is presented on the ASMONIA website [www.asmonia.de](http://www.asmonia.de).

News about the project status, press releases, as well the publication of project deliverables can be found on the website.

The website is maintained at Fraunhofer AISEC by Hans Hofinger.

![Figure 1: ASMONIA Website (December 2011)](image-url)
## References

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Glossary and Abbreviations

**Glossary**

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**Abbreviations**
## Revision History

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