# **Newsletter**

ISSUE 2



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**NOVEMBER 2013** 

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# **Main Project Information**

The EURO-MILS project has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreement number ICT-318353.

The project aims to develop a solution for virtualisation of heterogeneous resources and provide strong guarantees for isolation of resources by means of Common Criteria certification with usage of formal methods.

**Key Data:** 

**Duration:** 

Start date: 1<sup>st</sup> October 2012

End date: 30<sup>th</sup> September 2015

36 months

Project reference: 318353

Project cost: € 8.447.558

Project funding: € 6.000.000

One of the EURO-MILS goals is to discover the business, legal and social acceptance of trustworthy technology in several key markets (e.g. healthcare, finances, transports, etc.). Do you wish to participate and share your opinion as a key representative of your industry? Send a message to: interview@euromils.eu and we will contact you to participate in the EURO-MILS Industry Panel.

## Message from the Coordinator

The end of the first period of the EURO-MILS project has already been reached. The last few month have been busy ones: Several deliverables and milestones had to be finalised and reached before the official first EURO-MILS Review Meeting took place on the 14<sup>th</sup> of November 2013 in Brussels . This meeting was quite successful and the project received positive feedback from both the reviewers and the project officer. We are looking forward to a successful next EURO-MILS project period and would like to take the opportunity to thank all partners for the great collaboration and their valuable work performed so far!

### Results of the first Year—Deliverables

A first set of deliverables created throughout the first EURO-MILS project year has been presented at our first EC review meeting. These comprise:

- Deliverable 11.1 "Project Requirements: Classification, Cross-domain analysis and High-Level Architecture" (Restricted)
- Deliverable 12.1 "Technical Analysis of Available Assurance Techniques" (Public)
- Deliverable 12.2 "Security Target for a Highly Robust OS in Europe: draft" (Confidential)
- Deliverable 21.1 "MILS Architecture" (Public)
- Deliverable 31.1 "Formal specification of a generic MILS separation kernel" (Public)
- Deliverable 41.1 "Project website" (Public)
- Deliverable 41.2 "Initial Report on Dissemination, Standardisation and Exploitation" (Public)
- Deliverable 42.1 "Project Internal and External IT Communication Infrastructure" (Public)

In addition the "1<sup>st</sup> Periodic Report according to EC regulations of the model contract" has been submitted to the EC.

#### Results of the first Year—Milestones

Within the first project period, two main Milestones have been reached:

- A definition of security, functional, interoperability and acceptance requirements was made.
- A Security Target with boundaries for security and formal modeling has been created and the extensions for HOL-TestGen have been defined.

# Visit our EURO-MILS Project Website — www.euromils.eu

All EURO-MILS related news, like upcoming meetings and conferences, as well as EURO-MILS related scientific publications and other dissemination material can be found on our project website. In addition to that, you will find all public deliverables (marked "Public" above) also uploaded on our project website after they have been officially approved by the European Commission.



# **Newsletter**



#### Scientific Publications in Year 1

Decreasing System Availability on an Avionic Multicore Processor Using Directly Assigned PCI Express Devices. K. Mueller, D. Muench, O. Isfort, M. Paulitsch, G. Sigl; In proceedings of EUROSEC 2013; 2013.

**Test Program Generation for a Microprocessor.** A. D. Brucker, A. Feliachi, Y. Nemouchi, B. Wolff; In TAP 2013: Tests And Proofs. Lecture Notes in Computer Science (7942), pages 76-95, Springer-Verlag, 2013.

**Environment for Specification-based Firewall Conformance Testing.** A. D. Brucker, L. Bruegger, B. Wolff; In International Colloquium on Theoretical Aspects of Computing (ICTAC). Lecture Notes in Computer Science (8049), Springer-Verlag, 2013.

The Circus Testing Theory Revisited in Isabelle/HOL. Abderrahmane Feliachi; International Conference on Formal Engineering Methods (ICFEM 2013); Springer LNCS; 2013.

Theorem-Prover Based Test Generation for Circus. Abderrahmane Feliachi; Dastuhl Seminary 13021: Symbolic Methods in Testing (oEds: Jeron, Veanes, Wolff); Leipnitz Zentrum für Informatik; 2013.

#### **Presence at Events**

The EURO-MILS consortium held dissemination activities at various important events during the first project year:

- Avionics Europe, Munich/ Germany
- EuroSec 2013, Prague/Czech Republic
- rts Embedded Systems, Paris/ France,
- TAP 2013, Budapest/Hungary
- The Open Group Philadelphia
   2013, Philadelphia/USA
- 14<sup>th</sup> International Common Criteria Conference 2013, Florida/USA

We kicked off the second period already with our presence at two important events: the escar Embedded Security in Cars Conference as well as the ICT 2013.

# **Outlook for the second EURO-MILS Project Year**

We made good progress during our first year of EURO-MILS activity, which provides a solid basis for the upcoming one. Our main upcoming objective is the instantiation of the MILS architecture for avionics and automotive. Next, board support packages and generic I/O virtualization support are up. Further we are working on generalizing the Security Target to a Protection Profile. The second year will conclude with the presentation of our Common-Criteria-based composite evaluation approach, a formal framework for MILS integration, and support for secure concurrent I/O.

The "2<sup>nd</sup> Periodic report according to EC regulations of the model contract" will contain a description of our work during year 2, which will result in the following deliverables:

- Deliverable 21.2 "MILS architecture for avionics and automotive"
- Deliverable 21.3 "Trustworthy MILS: CC composite evaluation approach"
- Deliverable 21.4 "Formal framework for MILS integration"
- Deliverable 22.1 "MILS virtualisation platform implementation on adapted PikeOS, board support, documentation"
- Deliverable 22.2 "Multi-architecture module for secure concurrent IO"

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