

Newsletter / July 2018 - Issue 3

Compositional security certification for medium- to high-assurance COTS-based systems in environments with emerging threats

Consortium

11 partners (5 countries)

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Project start: 1st January, 2017

Duration: 48 Months

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EC contribution: EUR 3,999,055.63

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Message from the Coordinator

Since the previous newsletter in February 2018, the certMILS project made significant progress. 10 deliverables, dealing with guidelines to use and apply PP, security templates, compositional design and security, and ETR certificates were submitted.

The completion of these deliverables allowed the CERTMILS project to reach a new milestone, MS3 "PP ready for community feedback, pilots specified". Moreover, the consortium met at the 2nd Technical meeting in Seville (12th – 14th June, Spain), hosted by Schneider Electric, as well as on 25th June at the 4th International Workshop on MILS in Luxembourg.

Upcoming Conferences

**Review Meeting -
27th September 2018**

@ Brussels, Belgium

ICCC - 30th October 2018

@ Amsterdam, The Netherlands

 **ICCC 2018**

**ICT Vienna - 4th to 6th
December 2018**

@ Vienna, Austria



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certMILS Technical Meeting in Seville/Spain



From the 12th to the 14th of June, certMILS' Technical Meeting took place in Seville, Spain. The certMILS team discussed the current project status and outlook of the project for the upcoming months. Partners were engaged in essential technical alignment discussions, more tasks and responsibilities were defined, and preparation of upcoming deliverables was discussed in detail. A demo of the Smart Grid pilot (medium assurance) was shown. All in all, it was a very productive and successful meeting and the partners are looking forward to the second period of the project.

4th International MILS workshop @ DSN 2018

The certMILS project organised the 4th International workshop on MILS, in Luxembourg on 25th of June. The workshop was co-located with the DSN 2018 conference. The workshop explicitly welcomed contributions on the industrial application of compositional assurance, assurance and certification frameworks, attack methods, and templates for MILS systems. The workshop topics covered a variety of fields, such as compositional approaches for safety and security, methods and tools for assurance generation, MILS components and eco-system.

This year the workshop was especially strong with four contributions in the railway domain. The presentations can be found and downloaded at the following link: <http://mils-workshop-2018.mils.community>



Smart Grid pilot with Saitel RTUs and PikeOS for high-assurance

MILS Community

If you want to

- learn more on the MILS Community,
- participate in it,
- be informed about its status,

then send an e-mail to community@mils.community or subscribe to the MILS mailing list mils@lists.technikon.com

The MILS mailing list is a public mailing list for discussions of Multiple Independent Levels of Security (MILS) architectural approach for security and safety, MILS components, MILS implementations, MILS research, MILS use-cases, real-time separation kernels, MILS evaluation and certification, MILS testing and vulnerability, and analysis of MILS systems.

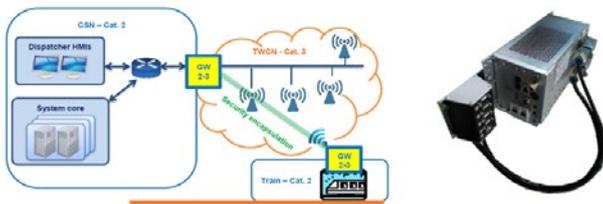
Project Progress/ Highlights

The 1st period of the certMILS project is completed and the 3rd milestone of the project “PP ready for community feedback, pilots specified” was successfully reached. In this period, the work of the certMILS consortium focused on providing a platform for PP, described in the report “Base MILS Platform PP”. It is a living document and thus will be extended thanks to internal and external feedback. Moreover, the consortium provided a security architecture template to be used for the certification of a MILS system, as well as concrete requirements for developers and methodology for evaluators in order to support the evaluation and certification process, in addition to the Common Criteria and IEC 62443.

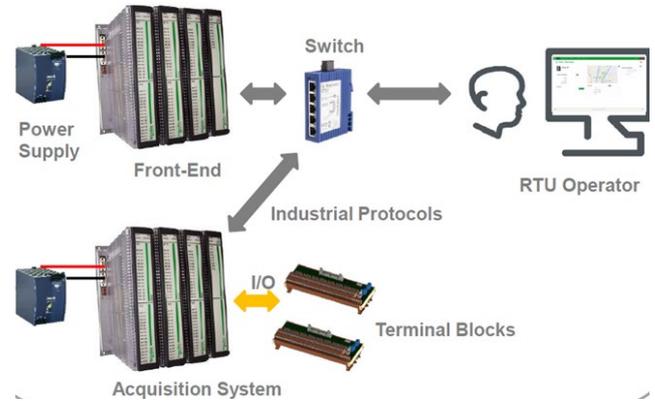
certMILS identified the typical application-level services for its security architecture, which are

- 1) Access control
- 2) Identification and authentication
- 3) Input validation
- 4) Secure fallback functionality.

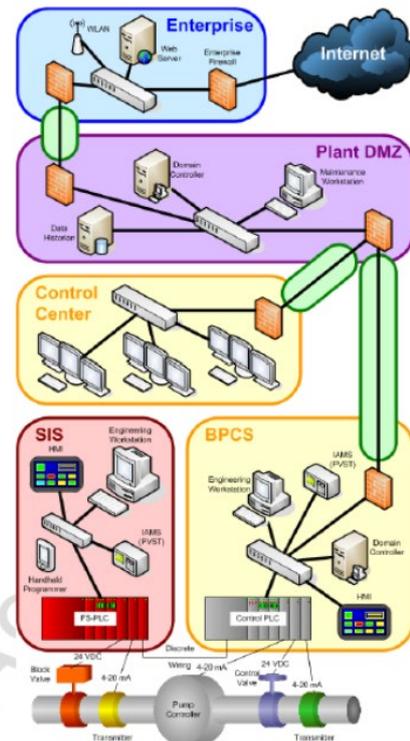
In addition to that, the consortium identified the Security Kernel domain separation and its use, which can be resumed in a secure initialization, self-protection and non-bypassability.



Showcase for subway-tracing security architecture, which has been tested by partner UCO.



Smart Grid pilot - medium assurance schema



Definition of Zones and Conduits (IEC 62443) and their application in the Train Pilot

The work on the pilots went on smoothly and gave good results in terms of specification and implementation, with the definition of an architecture which combines safety and security on a single piece of hardware, and whose performance and usage shall be restricted and predictable. Overall, the project is well on track and the communi-

cation between the partner is efficient and well-established. Moreover, some certMILS partners are also working on separation kernel Common Criteria (CC) standardization, which is open to any interested party. Contact hbl@sysgo.com if you are interested in joining CC work.