Secure Software Engineering in DevOps and Agile Development

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Software security is about protecting information and ensuring that systems continue to function correctly even when under malicious attack. The traditional approach of securing a system has been to create defensive walls such as intrusion detection systems and firewalls around it, but there are always cracks in these walls, and thus such measures are no longer sufficient by themselves. We need to be able to build better, more robust and more “inherently secure” systems, and we should strive to achieve these qualities in all software systems, not just in the ones that “obviously” need special protection.

Software security reached prominence the the publication of Gary McGraw’s book in 2006, but was of course not invented then. However, few software development organizations other than those involved with creating security software saw the need for paying much attention to software security, and thus the secure software development frameworks available tended to be rather clunky and not particularly suited to the emerging agile software development approaches. If we accept the earlier stated premise that software security is necessary for all software, there is clearly a need for software security methodologies that also work with agile.

This year the workshop was co-located with ESORICS 2017 in Oslo, Norway. This year’s workshop focused on techniques, experiences and lessons learned for engineering secure and dependable software using the DevOps paradigm, as well as other forms of agile development.

The program of the workshop was comprised of three different forms of contributions. The Keynote speaker was Laurie Williams from NCSU, who presented the Experiences with Continuous Deployment and Software Security in Google, Netflix, Facebook and others. We have also included two presentations from industry as a form of opening the communication between academia and practice: Dr. Jostein Jensen presented the experiences from Kongsberg Digital on industrial enterprise security and Per Kronström presented the experiences of Visma Software with static analysis tools.

Of course, a workshop would not be a success without the hard work of the many researchers and practitioners who submitted their papers for review. This
year we received 11 submissions, from which we selected 6 to be presented at the workshop and inclusion in these workshop proceedings.

We are grateful for the hard work performed by our Technical Program Committee:

- Sergey Bratus, Dartmouth College, USA
- Achim Brucker, Sheffield University, UK
- Estibaliz Delgado, Tecnalia, Spain
- Zeta Dooly, TSSG, Ireland
- Jörn Eichler, Fraunhofer Institute for Applied and Integrated Security (AISEC), Germany
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- Riccardo Scandariato, KTH, Sweden
- Hossain Shahriar, Kennesaw State University, USA
- Emin Tatli, Medipol University, Turkey
- Laurie Williams, NCSU, USA
- George Yee, Carleton University, Canada
- Mohammad Zulkernine, Queens University, Canada

We would like to gratefully acknowledge the hard work of the organizing committee. Finally, we would like to thank our sponsors, the Research Council of Norway through the project SoS-Agile (NFR 247678).

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