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News: Rich Program Earns Praise from SATURN 2015 Conference Attendees

The Software Engineering Institute (SEI) hosted its eleventh annual SEI Architecture Technology User Network (SATURN) Conference this year in Baltimore, Maryland from April 27 through April 30. The conference, which boasted the second-highest attendance in the history of the event, attracted attendees from 21 countries and 119 organizations. Participants shared ideas, insights, and experiences about effective architecture-centric practices for developing and maintaining software-intensive systems.



Writing in his blog, keynote speaker Gregor Hohpe noted that SATURN 2015 was "... a perfect blend of structured thinking from the academic edge combined with valuable industry experience that would otherwise not make it to an academic conference due to lack of analysis and validation. The blend worked extremely well for me."

[Read more about SATURN 2015 and learn how to access related resources.](#)

Also in the news:

- [Shannon Stresses Better Measurement, Better Data Access, and Coordinated National Strategies in House Subcommittee Testimony](#)
- [CERT Resilience Management Model Extended to Tackle Postal Security Challenges](#)
- [Java Coding Guidelines Now Available Free Online](#)

In Department of Defense programs, a system of systems (SoS) is integrated to accomplish a number of missions that involve cooperation among individual systems. Understanding the activities conducted within each system and how they interoperate to accomplish the missions of the SoS is of vital importance. A mission thread is a sequence of end-to-end activities and events, given as a series of steps, that accomplish the execution of one or more capabilities that the SoS supports. However, listing the steps and describing them do not reveal all the important concerns associated with cooperation among the systems to accomplish the mission; understanding the architectural and engineering considerations associated with each mission thread is also essential. In this podcast, Michael Gagliardi introduces the Mission Thread Workshop (MTW), a facilitated, stakeholder-centric workshop whose purpose is to elicit and refine end-to-end quality attribute, capability, and engineering considerations for SoS mission threads.



Michael Gagliardi

[Listen to the podcast.](#)

SEI Blog: Model-Driven Engineering: Automatic Code Generation and Beyond

Vendors claim that model-driven engineering (MDE) tools enable developers to generate software code automatically and achieve extremely high developer productivity. The complicated reality is that MDE consists of more than code generation tools; it is a software engineering approach that can impact the entire lifecycle from requirements gathering through sustainment. While one can make broad generalizations about these methods and tools, it is more useful to consider them in the context of a particular system acquisition. Aligning MDE methods and tool capabilities with the system acquisition strategy can improve system quality, reduce time to field, and reduce sustainment cost. On the other hand, when MDE methods and tools do not align with the acquisition strategy, using them can result in increased risk and cost in development and sustainment.



John Klein

This blog post highlights the application of MDE tools for automatic code generation (in the context of the full system lifecycle, from concept development through sustainment) and also provides a template that acquirers can use to collect information from MDE tool vendors.

[Read the post.](#)

Events: CERT® Alignment with Cyber COI Challenges and Gaps, Virtual Event - June 23, 2015

On June 23, 2015, from 9:30 a.m. to 4:30 p.m. Eastern Time, Researchers from the SEI's CERT Division will discuss their current work associated with cyber community of interest (COI) technology challenges and gaps in a day-long, interactive, virtual event. Participants will learn about

- how mission-readiness can be assessed at a DoD scale
- a tool that shows whether a connection to the web is secure and what information is being transmitted



- the mutual benefits and interests between the SEI's CERT Division and the Cyber COI
- how DevOps methodologies address dynamic changes in cyberspace with the high-fidelity automation of networks, systems, and, applications
- how a small subset of features from dynamic malware analysis can help to uncover possible relationships among files and to direct static reverse-engineering efforts
- undesired flows of sensitive information within and between Android apps
- mobile device security enhancements with defensive and offensive uses

Participation in this virtual event is free, but registration is required. For more information and to register, please visit the [event website](#).

Events: 12th SEI Architecture-Centric Engineering (ACE) Workshop for Educators, August 3-4, 2015, SEI Pittsburgh

The 12th SEI Architecture-Centric Engineering (ACE) Workshop for Educators will be held at the Software Engineering Institute in Pittsburgh, Pennsylvania, USA, on August 3-5, 2015. The SEI hosts this annual event to foster an ongoing exchange of ideas among educators whose curricula include the subjects of software architecture and software product lines. The event is free of charge and open to any accredited, college-level educator.



This year's event will incorporate two SEI courses. The first course, Engineering Run-Time Malware Detection, covers the principles of designing and implementing a real-time malware detection system for an existing operating system, with concrete examples for Windows 7. The second course, DevOps and Continuous Delivery: Software Architecture, Security, and Interactive Learning, is helpful if you wish to adopt DevOps practices and continuous-delivery workflows. The architecture component of the course focuses on the relationships among application software, the deployment environment, and the supporting tooling.

To learn more about ACE 2015, please visit <http://www.sei.cmu.edu/community/edworkshops/2015/index.cfm>.

These workshops are open to any accredited college-level educator. If you are an accredited college-level educator and are interested in attending, please send email to info@sei.cmu.edu and include the words "ACE Workshop" in your subject line.

SEI Jobs

The SEI is a great place to pursue your passion. Headquartered in Pittsburgh, Pa., the SEI also has offices in the Washington, DC, and Los Angeles, Calif., metropolitan areas.

Interested in working for the SEI? Visit our Careers page. Below are a few recent employment opportunities. For more job listings and full position descriptions, check out the [SEI Careers page](#).



[Project Manager](#)

[Industrial Security/IT Specialist](#)

[Senior Software Developer](#)

[More job listings...](#)

Training

Upcoming Classes:

June 24-26, 2015 (Pittsburgh, PA):

[Insider Threat Vulnerability Assessor Training](#)

July 14-16, 2015 (Pittsburgh, PA):

[TSP Team Member Training](#)



New SEI eLearning Course:

[Big Data Architectures](#)

New Registration Portal

SEI Training has recently upgraded to a robust registration portal. The new portal provides simple and secure online access to course registration payments, a purchase history, confirmation letters, and receipts.

To view a video demo of the new SEI Registration Portal, please visit

<http://www.sei.cmu.edu/training/registration/>

[More SEI training opportunities...](#)

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About the SEI Bulletin

The SEI Bulletin is a biweekly newsletter designed to keep you up to date on SEI news, events, research, and other matters of interest to the SEI community. We hope you find the SEI Bulletin useful and informative.

Send Us Your Story

Do you have a story about how an SEI technology has positively affected your team or organization? If so, the SEI would like to hear about it. Send a short summary of your success to info@sei.cmu.edu and you could be featured in a future issue of the SEI Bulletin.