

The 2016 IEEE International Conference on Software Quality, Reliability and Security

QRS 2016

Vienna, Austria, August 1-August 3, 2016
<http://paris.utdallas.edu/qrs16>

Panel by CRE Workshop

Achieving Defensive Asymmetrical Advantage via Technical, Policy, and Organizational Means

Organizers:

Nick Multari Asymmetric Resilient Cybersecurity Initiative Lead,
Pacific Northwest National Laboratory
Jeffrey Picciotto Senior Principal Cyber Security Engineer,
The MITRE Corporation

Panelists:

Paul Nielsen Director, CMU/SEI
Bob Cowles Former CISO, SLAC Accelerator National Lab
George Sharkov Coordinator, Cybersecurity for the Bulgarian Government
Rolf Reinema Head, IT-Security, Siemens

Abstract

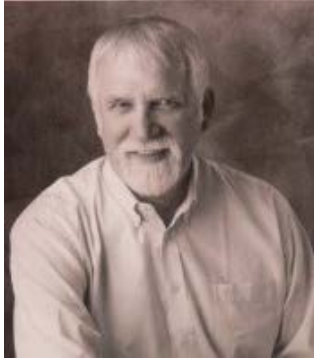
Thwarting cyber adversaries requires raising attackers' cyber economic costs disproportionately above defenders' costs. There are many dimensions to this equation, from the financial costs of technology development and deployment to reputational costs of public success or failure. In addition, these costs affect and are affected by technological, organization and policy issues.

This panel will explore the varied dimensions of this cyber economic equation and a wide range of approaches to achieving defensive asymmetric advantages.

About the panelists



Dr. Paul D. Nielsen is the Director and CEO of Carnegie Mellon University's Software Engineering Institute. The SEI is a federally funded research and development center sponsored by the US Department of Defense. The SEI concentrates on software engineering and cybersecurity methods that enhance mission assurance for complex systems. Earlier Nielsen served in the US Air Force, primarily in R&D, and retired as a major general. Nielsen is a member of the U. S. National Academy of Engineering and a Fellow of the IEEE and AIAA. He serves on several boards including the Defense Science Board.



Robert (Bob) Cowles is principal in BrightLite Information Security performing cybersecurity assessments and consulting in research and education about information security and identity management. He served as CISO at SLAC National Accelerator Laboratory (1997-2012); participated in security policy development for LHC Computing Grid (2001-2008); and was an instructor at University of Hong Kong in information security (2000-2003). Recently, he has been working with the Center for Trustworthy Scientific Cyberinfrastructure (CTSC) by participating in development of cybersecurity guidance documents and in engagements to evaluate and advise the cybersecurity programs at NSF facilities.



Dr. George Sharkov is an adviser on Cyber Defense for the Minister of Defense, and appointed as a National Cybersecurity Coordinator (“Cyber Czar”) at the Security Council, Government of Bulgaria, responsible for the development of a National cybersecurity strategy and action plan, and participating EU and NATO forums. He graduated Mathematics/Computer Science at Sofia University, obtained his PhD in Artificial Intelligence, with specialization in applied informatics, biophysics, thermography and genetics, enterprise intelligent systems. He is leading the CyResLab (Cyber Resilience Lab) at ESI CEE, and a research network in cryptology, cybersecurity and resilience. Lead appraiser (apprentice) with CERT-RMM (Resilience Management Model, CERT-SEI, Carnegie Mellon). He is also a member of NIS Platform of ENISA and the standardization Technical Committee CYBER of ETSI and lecturing software quality and design, cybersecurity and resilient business at 3 leading universities in Bulgaria. Dr. Sharkov is pioneer in new digital ecosystems development, regional ICT brand, startup and accelerator programs, and initiatives for cyber resilient internet society.



Dr. Rolf Reinema received his diploma degree in computer science from University Erlangen-Nuremberg and his doctoral degree from Darmstadt University of Technology. In the past, he has been leading the software development department of MEDiatec GmbH and acted as the Vice Director of the Fraunhofer Institute for Secure Information Technology. From 2006 to 2014 he has been responsible for all corporate&technical security disciplines within Vodafone (Germany and Central European Region). In May 2014 he moved to Siemens where he is now leading the global technology field IT-Security, which drives the further involvement of IT-Security within Siemens’ IT as well as its manifold products. He also operates the CERT and the CSIRT functions.