Invited Talk

Toward WS-Certificate

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Abstract
Certifying the security and dependability properties of individual web services or of entire business processes hosted on a Service Oriented Architecture (SOA) is a major challenge of SOA research. It is widely recognized that the unique features of WS/SOA require new security assessment approaches, including novel service testing and process monitoring techniques. In this talk, we discuss a framework for certifying the security and dependability properties of web-services and of SOA-based properties, introducing a third party certifier as a trusted authority. Our certifications are run-time negotiable XML data items based on signed test cases and formal proofs and operate at different level of granularity, providing a sound basis for run-time service selection and process orchestration decisions.

Categories & Subject Descriptors: D.4.6 Security and Protection


Bio
Ernesto Damiani is a full professor at the Information Technology Dept., University of Milan, where he leads the SESAR research lab, and the Head of the University of Milan's Ph.D. program in Computer Science. He holds a held visiting positions at several international research institutions. Prof. Damiani serves in the editorial board of several journals in the secure software development area; among others, he is Area Editor of the Journal of System Architecture and Associate Editor of the IEEE Transactions on Service-oriented Computing. He is the Vice-Chair of the IEEE Technical Committee on Industrial Informatics, the Chair of IFIP WG 2.6 on Database Semantics and the Secretary of the IFIP WG 2.13 on Open Source Development. Moreover he is a co-author of the book "Open Source Systems Security Certification".

Antonio Maña received his MSc and PhD degrees in Computer Engineering from the University of Málaga in 1994 and 2003, respectively. In 1995 he joined the Department of Computer Science of the University of Málaga where he is currently Associate Professor. His current research activities include security and software engineering, information and network security, application of smart cards to digital contents commerce, software protection and DRM. He has more than 60 peer-reviewed publications. He has participated in several EU funded projects and is currently the Scientific Director of the FP6 SERENITY project and the UMAs principal investigator of FP6 GST and GREDIA projects. Prof. Maña is member of the Editorial Board of the Intl. Journal of Electronic Security and Digital Forensics (JIESDF) and reviewer for several other international journals. He is member of different professional and scientific societies and workgroups and is actively involved in the organisation of research and educational activities.