Tradeoff between Performance and Security

Description

Security is essential in systems which are open to be accessed by requesters all around the world. It ensures confidentiality, authentication, authorization, and so on. This is even more essential in modern distributed systems which run on open cloud infrastructures in shared container services.

However, security is often achieved via encryption which, as a matter of fact, comes at the cost of computation power or is implemented in slow encryption smart card services. Hence, there is a performance loss. Overall, such systems have a trade-off between performance and security.

The objective of this seminar is to investigate method to analyze, predict, or optimize this trade-off. As a starting point, the search can be based on methods based on the Palladio component model like [2, 1].

References


Contacts

Steffen Becker (becker@informatik.uni-stuttgart.de)
Reliable Software Systems (RSS) Group
Institute for Software Technology (ISTE)
University of Stuttgart