

# (Abstract) Coordinating Distributed Security Enforcement

Richard Gay      Jinwei Hu      Heiko Mantel

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Dynamically enforcing security requirements in distributed programs in general cannot be performed soundly by isolated mechanisms at the program's distributed components. The challenge is therefore to coordinate the enforcement of distributed mechanisms in a way that enables sound decision-making, even in the case of concurrent distributed occurrences of events.

We present CliSeAu, a tool for distributed security enforcement that implements the concept and formal model of Service Automata. CliSeAu allows one to coordinate distributed enforcement by delegating the decision-making among the distributed mechanisms. The concrete delegation strategy can be chosen when using CliSeAu. We focus on a form of delegation that is based on partitioning security-relevant events into classes of responsibilities. We illustrate this approach at the example of enforcing a Chinese Wall requirement in a distributed storage service. For this scenario, we could show sound enforcement using the formal model of Service Automate.