



Efficient Access Control for Composite Applications

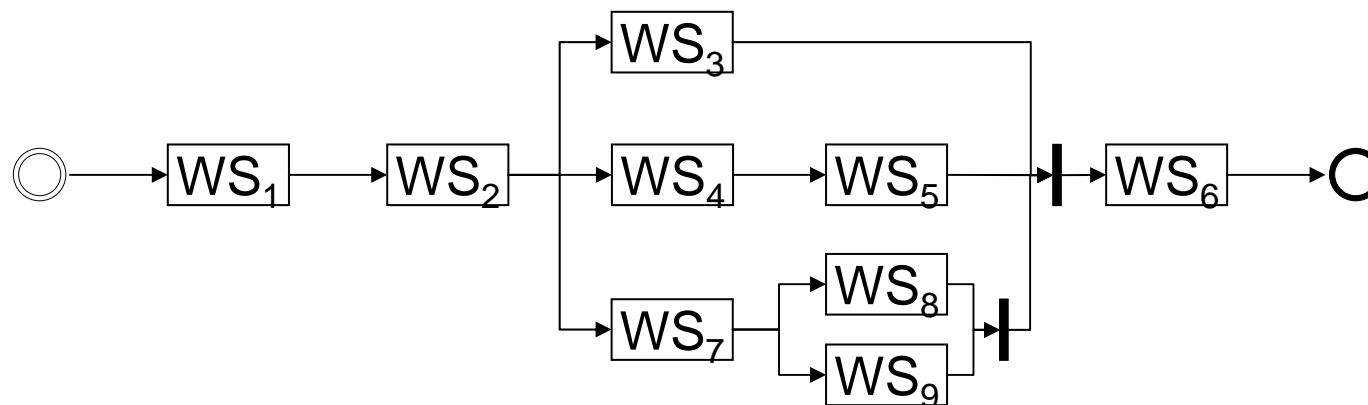
Martin Wimmer
Martina-Cezara Albutiu
Alfons Kemper
TU München

Maarten Rits
Volkmar Lotz
SAP Research

Optimized Access Control for Composite Applications

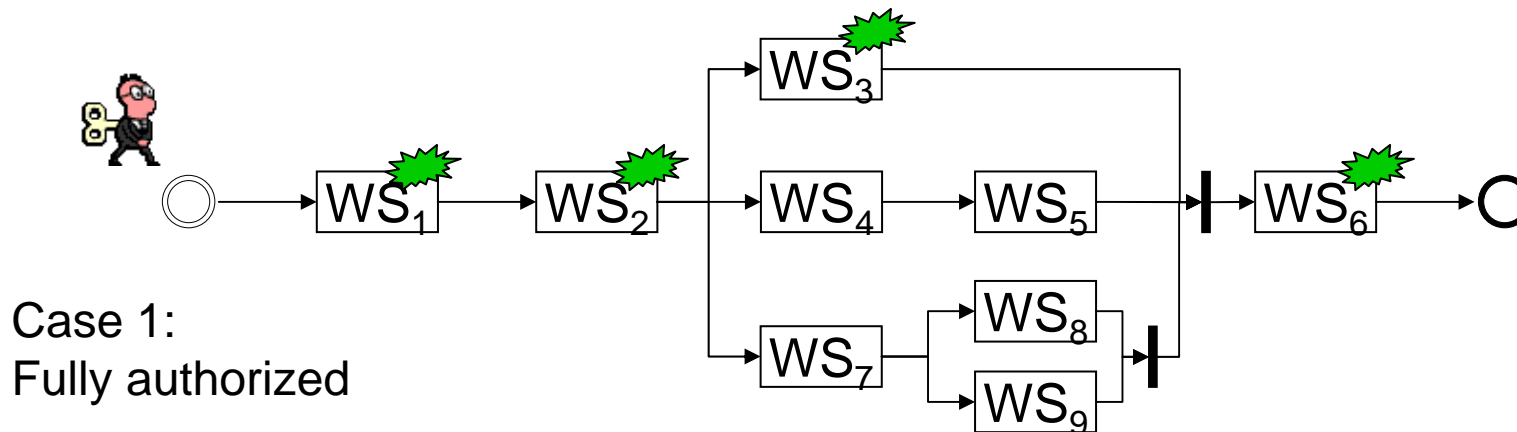
■ Focus

- ❑ Intra-organizational composite applications
- ❑ Enterprise Application Integration (EAI)
- ❑ Single-user / single-role execution
- ❑ Example: web service choreographies



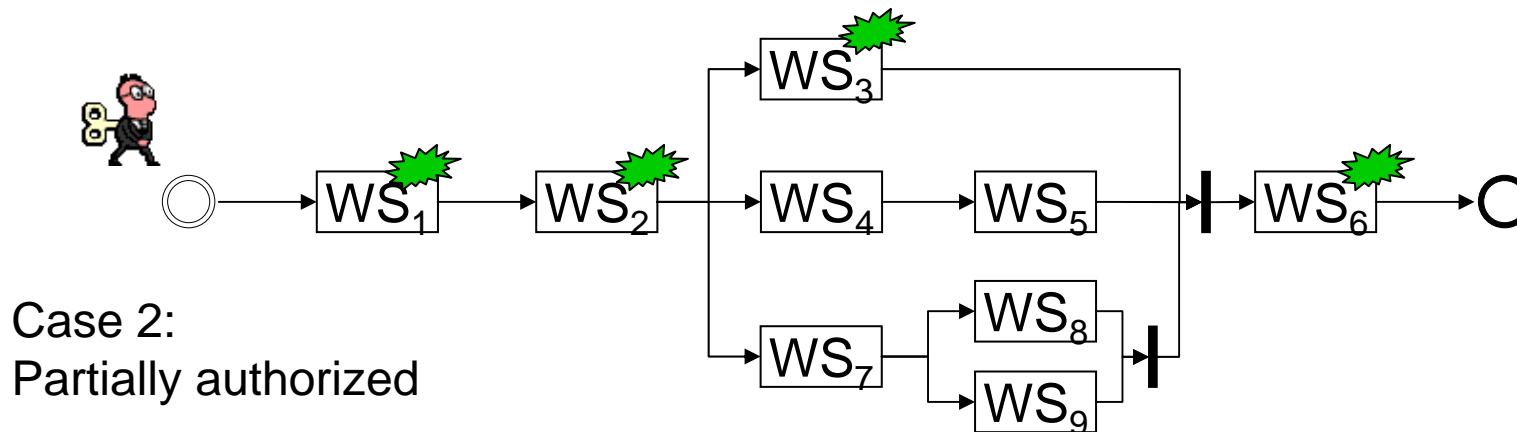
Optimized Access Control for Composite Applications

- Usually: Autonomous policy enforcements through the individual services
 - Repeated and potentially redundant policy evaluations



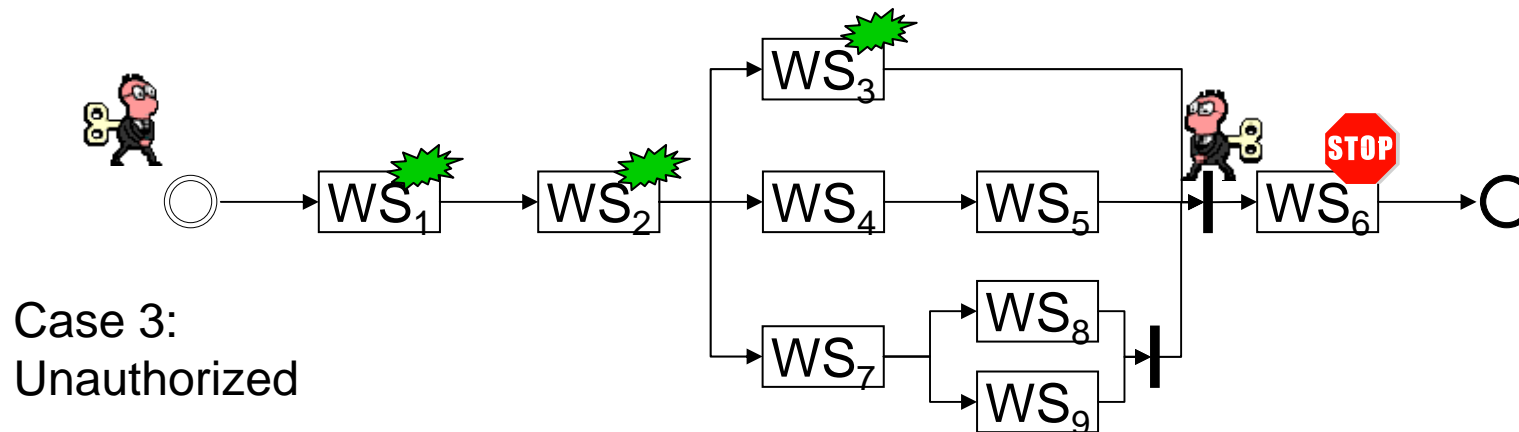
Optimized Access Control for Composite Applications

- Usually: Autonomous policy enforcements through the individual services
 - Repeated and potentially redundant policy evaluations

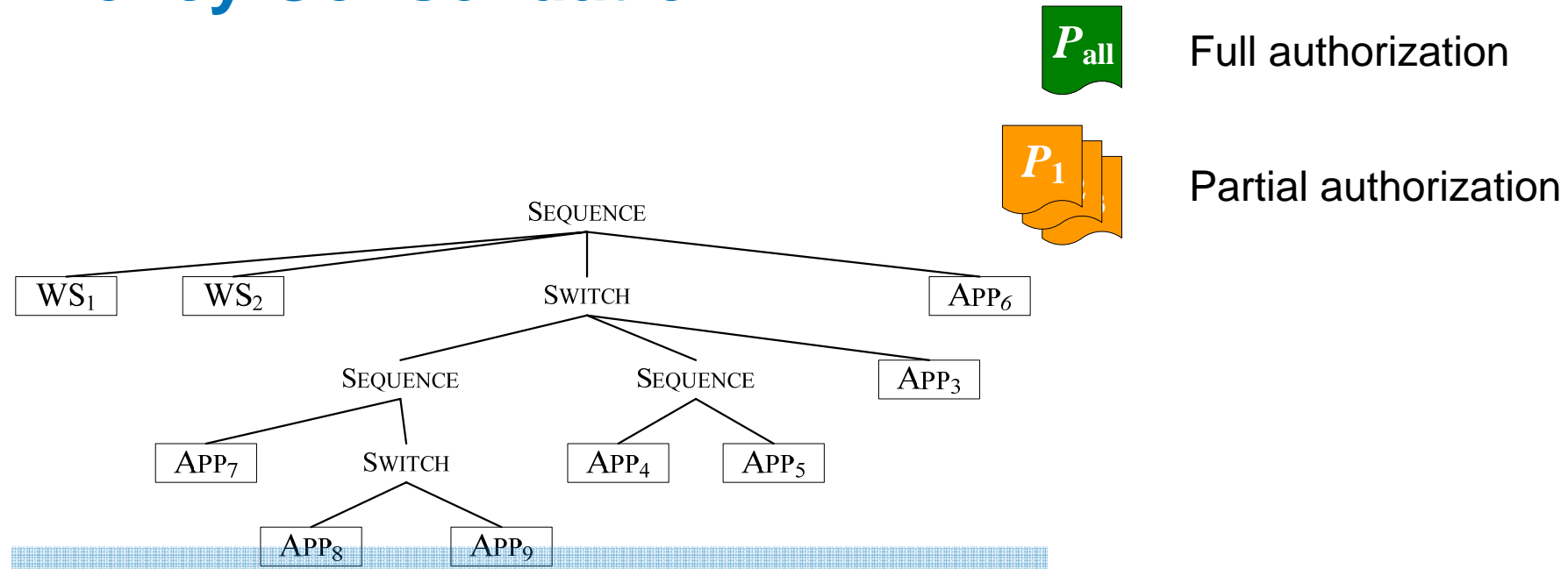


Optimized Access Control for Composite Applications

- Usually: Autonomous policy enforcements through the individual services
 - Repeated and potentially redundant policy evaluations
 - Performance drawbacks:
 - Needless execution of sub-activities
 - Eventually: rollbacks or compensating transactions



Policy Consolidation



- Bottom-up analysis of the workflow tree
- Consolidation of workflow policies
- BPEL4WS for workflow specification
- XACML as policy definition language

Demo

- Create your own workflows using SAP Research's BPM suite
- Modify security settings
- Compare traditional policy enforcements and consolidated enforcements for single-user executions
- Get informed about policy consolidation processes

