



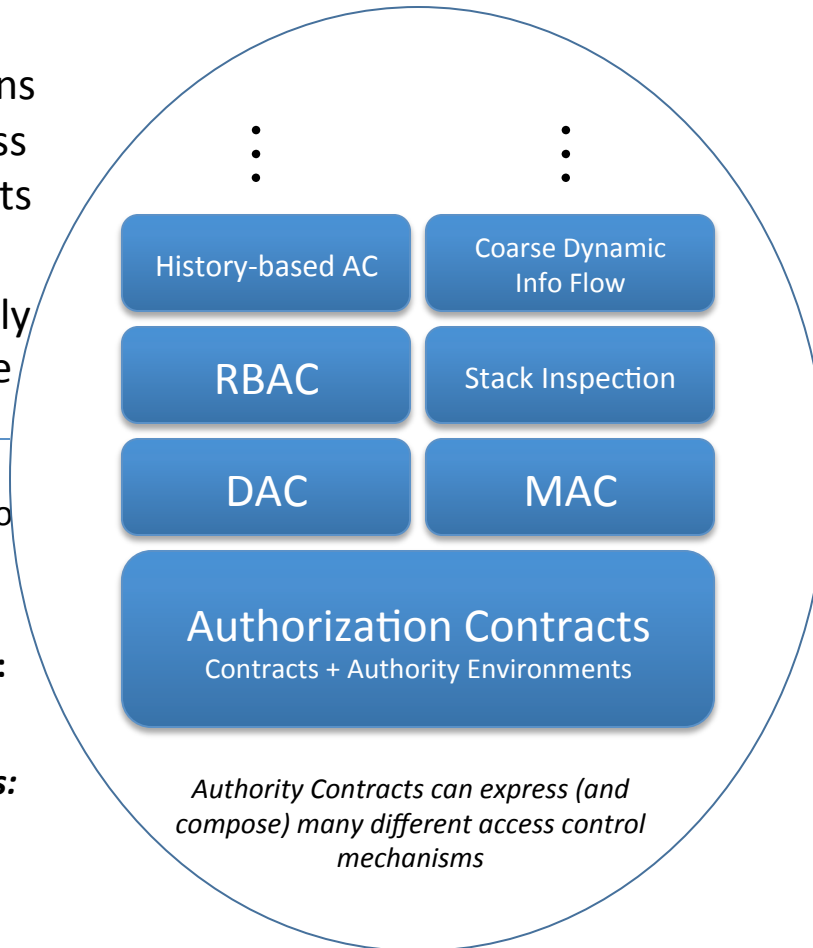
Extensible Access Control with Authorization Contracts

Challenge:

- Different applications have different access control requirements
- But access control mechanisms typically baked into language

Solution:

- Extensible framework to express and compose access control mechanisms
- **Authority environment:** associate rights with execution context
- **Authorization contracts:** software contracts to manage authority environments



Scientific Impact:

- Explores design space of access control
- Can implement DAC, MAC, stack inspection, custom access control, ...
- Can compose different mechanisms
 - Custom access control per application domain

Broader Impact:

- Improve security of applications: Programmers can build and use appropriate access control mechanisms for their application
- Appeared at OOPSLA 2016