Access Control Policy Mining and Management

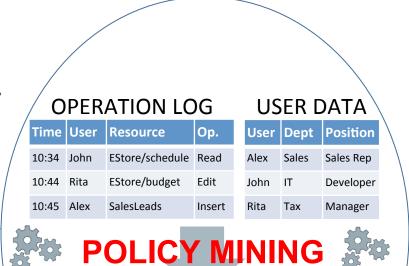


Challenge:

- Access control policies are increasingly large, complex, decentralized, and dynamic.
- Administrators need better tools that help them develop correct policies.

Solution:

- Develop policy mining algorithms that produce high-level policies from low-level policies or logs, with attribute data.
- Develop algorithms that verify safety of access control policies and administrative policies.



HIGH-LEVEL POLICY RULES

The manager of a department can view and edit the budgets of projects in the department.

Scientific Impact:

 Improved techniques for developing and administering attribute-based and relationship-based access control policies.

Broader Impact:

- Facilitate adoption of flexible access control models that promote security and information sharing.
- Reduce cost of policy development and increase confidence in policy correctness.

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