

Will Database Researchers Have Any Role in Data Security?

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ABSTRACT

Data security issues today go far beyond the traditional questions of grant/revoke in an RDBMS. We will discuss what the new research agenda should be.

Keywords

Security, Application Server, Intellectual Property

1. Panel Statement

Universal access to the WWW has made security a top issue for all large web sites. New problems have arisen, to enforce legally mandated privacy policies, and to protect intellectual property. Collaborative arrangements need to be created and ended, rapidly. Systems architectures have become far more complex, so it's not just the database where data needs protection. And there are too few people skilled either in specifying policies, or in the technical means of enforcing them. Is there anything the SIGMOD community can do to help?

For many years, database security research has been moribund, and has had little impact on recent practice. The action is moving far beyond the DBMS. Yet the SIGMOD community, with its expertise in [semi]structured data, declarative semantics, query compilation, constraints, triggers, etc. can play an important role in making future security systems more robust and easier to use.

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Questions for the panel include:

1. What big advances are needed in data security, and what research questions do they raise *for the SIGMOD community*?
 - For new kinds of policies (e.g., rights management, privacy)
 - For large (enterprise, coalitions, web) systems
 - In a world with too few skilled administrators to manage the we create
2. What concepts can we contribute to simplify the mix of DBMSs, object managers, policy management tools, systems management tools, enforcement systems, ...
3. Will the action be in policy specification, or in enforcement mechanisms?
4. What are the data security issues raised by fault tolerance (with reconfiguration of entire systems) and by defense in depth (where information may remain protected after an intrusion into the operating system)

Panel Members (partial list)

Arnon Rosenthal	(MITRE)
Klaus Dittrich	(U. Zurich)
Jim Donahue	(Intertrust)
Bill Maimone	(VP, Oracle)