Rethinking Security in the Era of Cloud Computing
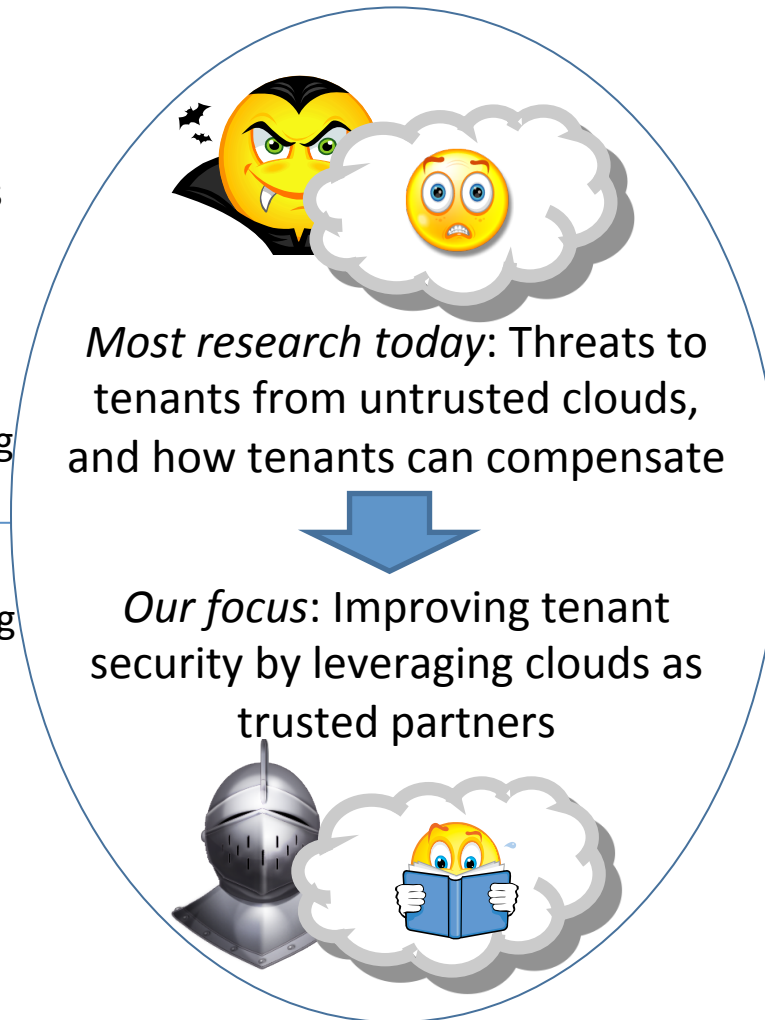http://silver.web.unc.edu/
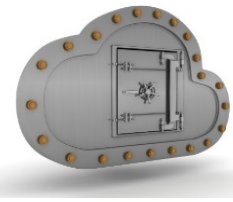
Project Silver

Challenge:

Cloud computing is a disruptive trend that offers a rare opportunity to deploy new approaches to computer security.

Our challenge is to realize this opportunity, leveraging trust in cloud operators.

Solution:

Research toward leveraging clouds as trusted partners to improve security for

- Clients of tenant servers
- Infrastructure services outsourced by tenants
- The cloud ecosystem

Most research today: Threats to tenants from untrusted clouds, and how tenants can compensate

Our focus: Improving tenant security by leveraging clouds as trusted partners

Scientific Impact:

- Focus on underexplored threat model: cloud as trusted partner
- New tech to support tenant security, ranging across credential management, exploit detection, DoS defense, isolation, trust mgmt, ...

Broader Impact:

Charting a course for better tenant security that is aligned with cloud operator incentives.

Outreach via two events:

- biennial Cloud Security Horizons Summits w/ cloud technologists
- annual Cloud Security Curriculum Development Workshops to help college instructors integrate cloud security into classes

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