

Attribute Based Access Control For Cloud IaaS

Challenges:

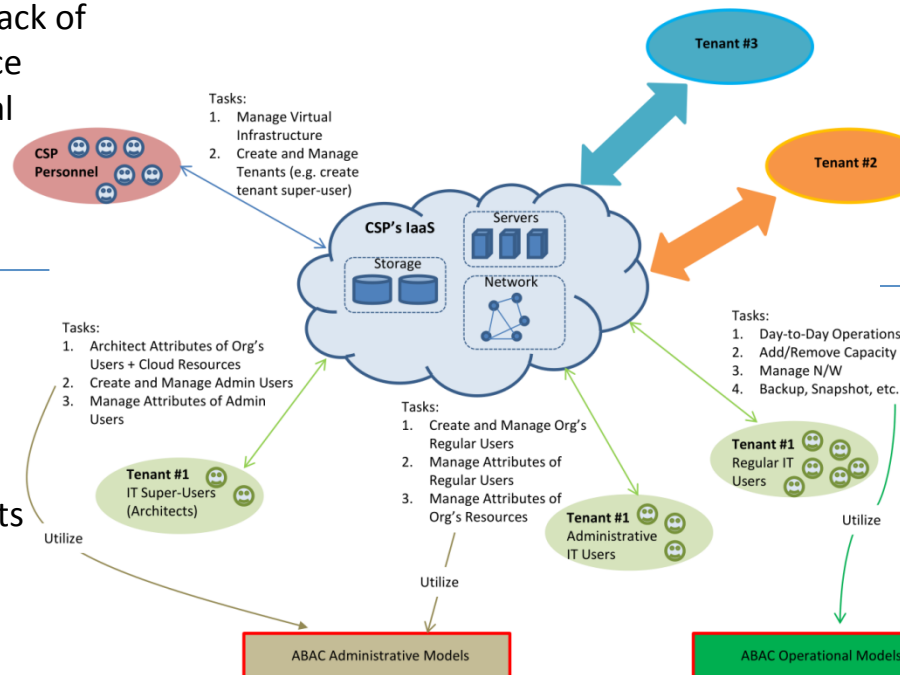
- Cumbersome abstractions of access control facilities provided by the cloud provider
- Multi-tenancy and availability concerns arising due to lack of control of virtual resource placement in the physical infrastructure

Scientific Impact:

- Toward an ABAC standard with application to cloud
- ABAC faces many challenges including attribute engineering, reachability analysis, administration, etc.

Solution:

- ABAC theory to tailor tenant specific access control abstraction
- Attribute based constraints theory to specify and enforce virtual resource placement constraints



Broader Impact:

- Cloud computing industry
- Possible transition to practice in OpenStack
- 2nd Workshop on ABAC (ABAC 2016, 2017)