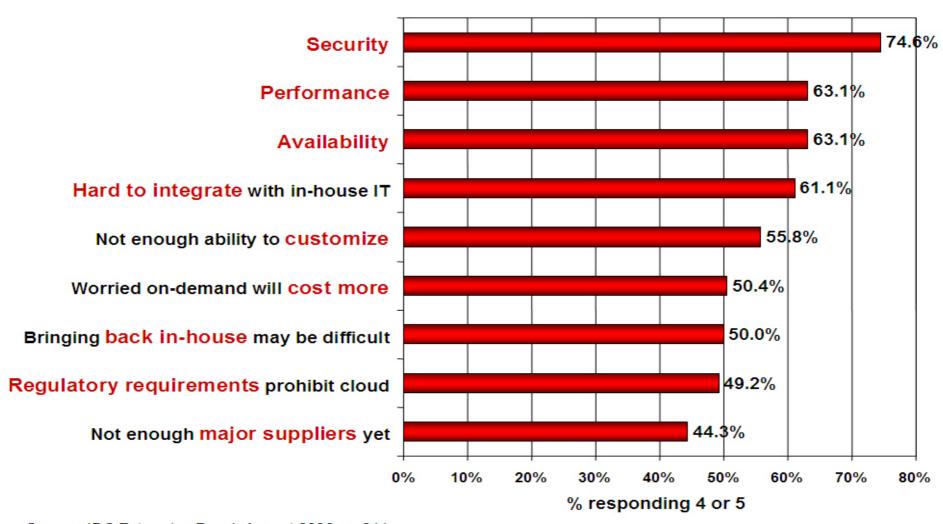
Cloud Computing #10 - Security

Obstacles for Transition Business Perspective

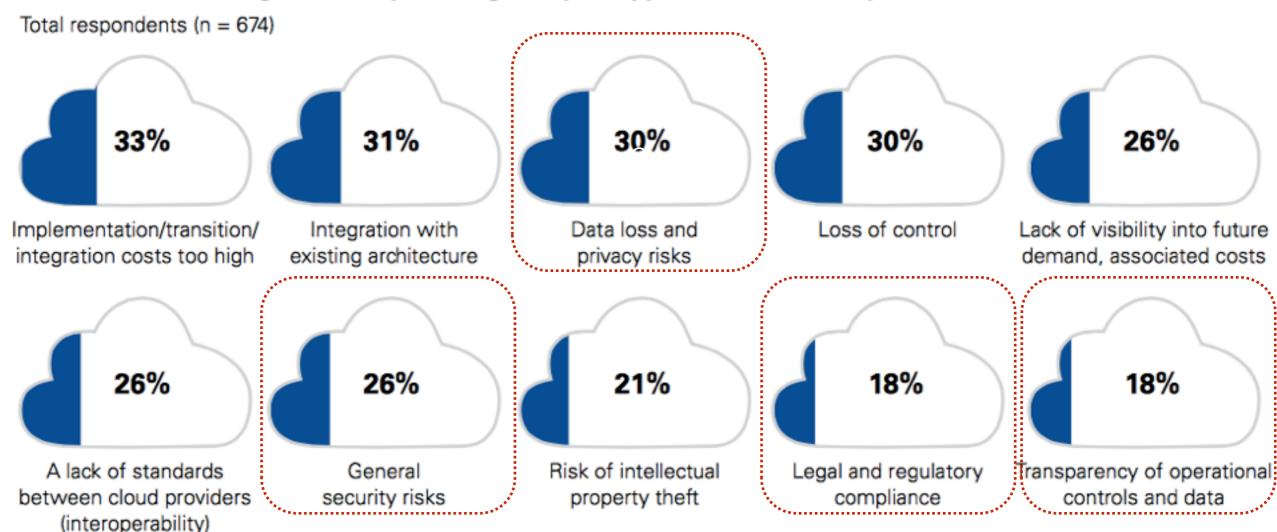
Q: Rate the challenges/issues ascribed to the 'cloud'/on-demand model (1=not significant, 5=very significant)



Source: IDC Enterprise Panel, August 2008 n=244

Obstacles for Transition Business Perspective

Which of the following are the key challenges of your approach to cloud adoption?



Source: KPMG International's Global cloud survey: the implementation challenge

Source: KPMG - "The cloud takes shape"

Cloud Security

- What's not new?
 - Phishing, password, malware, downtime etc.
- What's new? Understand...
 - Change in trust boundaries
 - Impact of using
 - Public vs. private cloud
 - IaaS vs. PaaS vs. SaaS
 - Division of responsibilities between customer and cloud provider
 - Regulated using policy

Cloud Security

- Infrastructure Security
 - Network Level
 - Host Level
 - Application Level
- Data Security and Storage
 - Data-in-transit, data-at-rest, data processing
 - Integrity and accuracy
- Identity and Access Management (IAM)
- Privacy

Control, Liability and Accountability

On premise	On premise (hosted)	laaS	PaaS	SaaS
App	App	App	App	App
VM	VM	VM	Services	Services
Server	Server	Server	Server	Server
Storage	Storage	Storage	Storage	Storage
Network	Network	Network	Network	Network
Organization has control		Organization shares control with vendor		Vendor has control

Image reproduced from Cloud security and privacy, 2009, Mather et al.

This lecture

- Datacenter Security Joakim Persson
- Block chaining Christopher Jämthagen

Some Reading

- Security guidance for critical areas of focus in cloud computing v3.0, Cloud Security Alliance
- T. Ristenpart et al. (2009) "Hey You Get Off My Cloud", 2009