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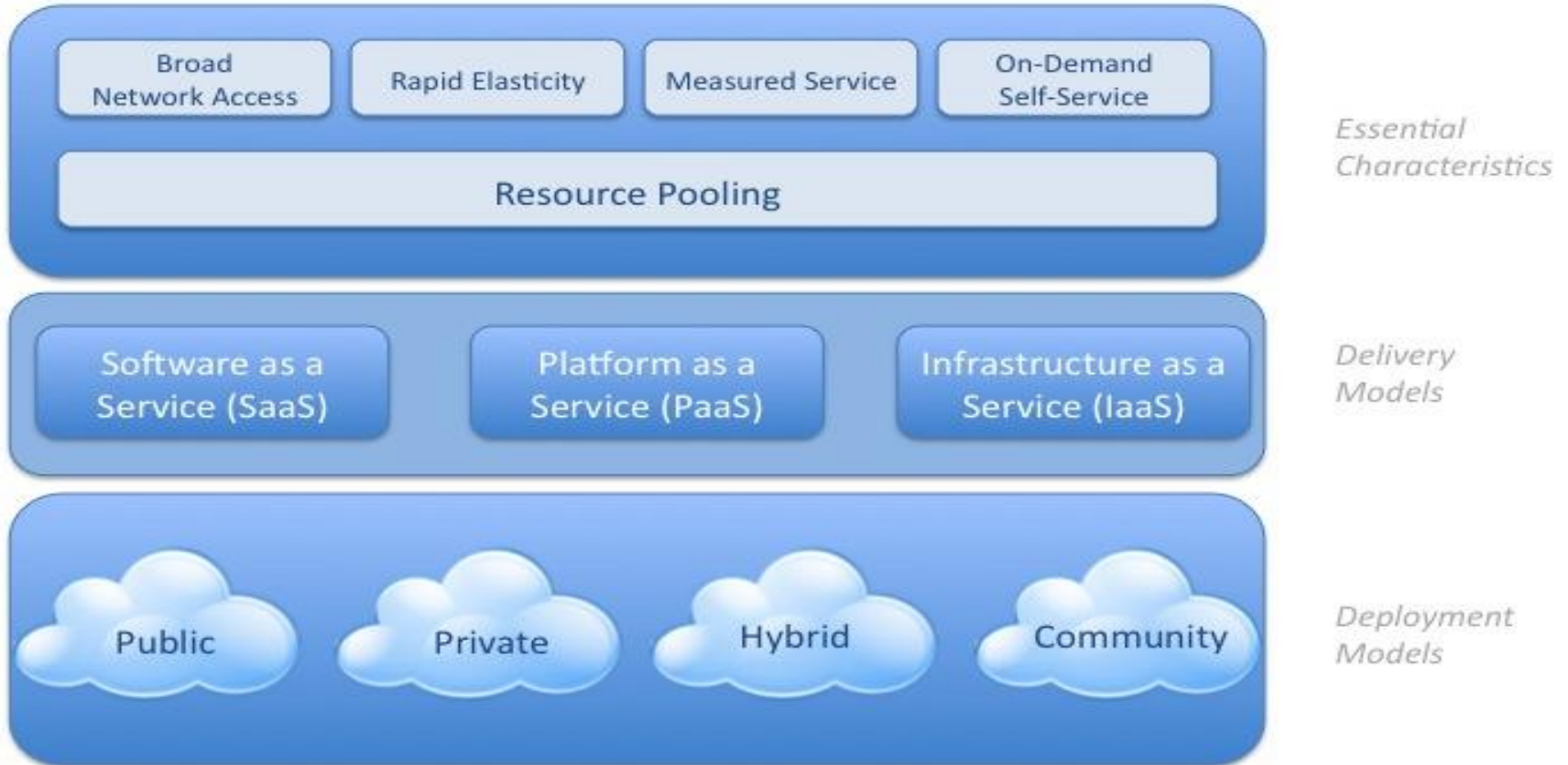
# Role of contracts in Cloud Computing—an Overview

Kevin McGillivray  
Doctoral Candidate (NRCCL)



## Visual Model Of NIST Working Definition Of Cloud Computing

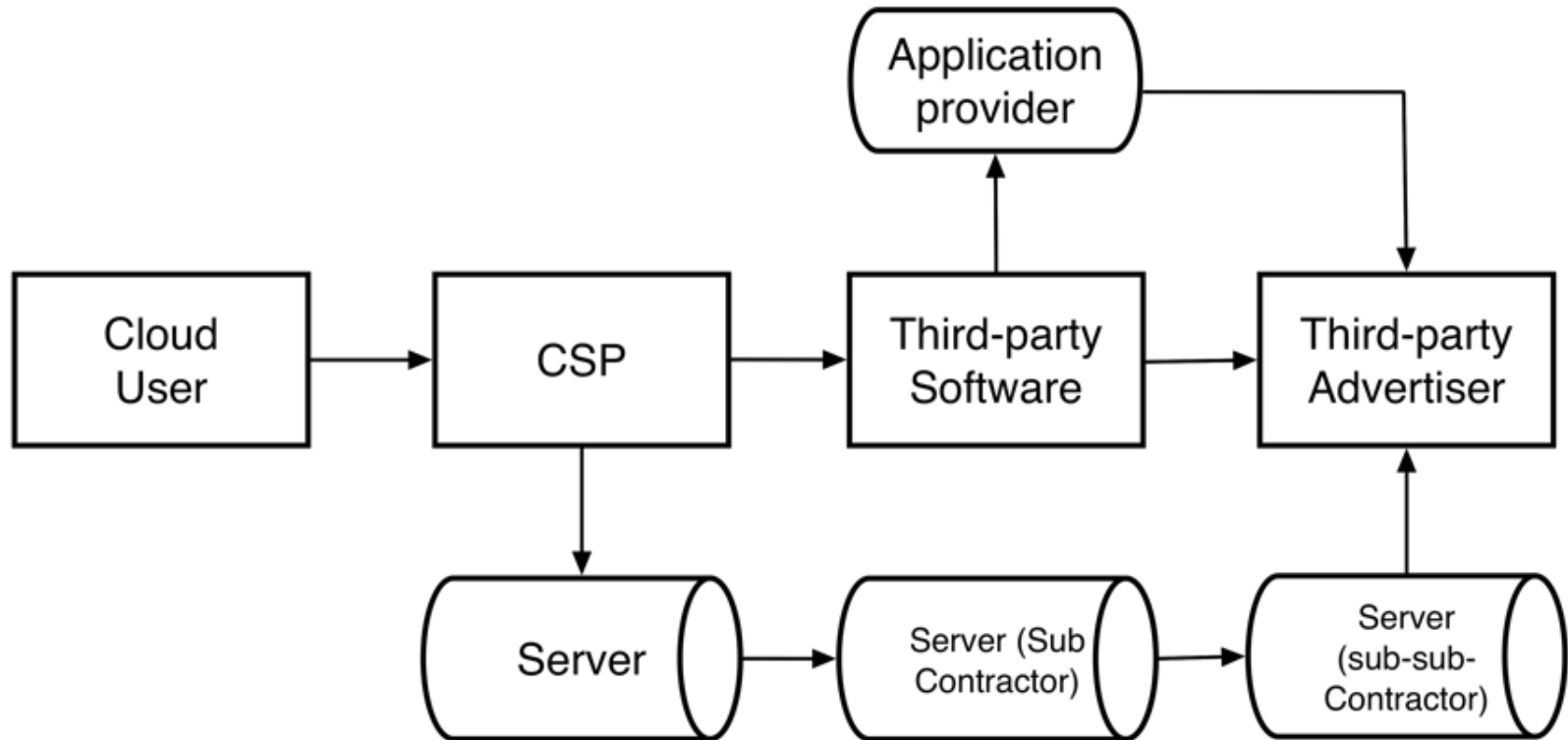
<http://www.csrc.nist.gov/groups/SNS/cloud-computing/index.html>



# Barriers/Challenges to Cloud

Transparency	Compliance	Legal
Shared infrastructure	Data protection/Data privacy regulations	Jurisdiction, conflicts of laws, extraterritorial application etc.
Subcontractors (and their location)	Consumer protection Industry specific regulations Discovery	Take-it-or-leave-it Contracts
Location of Data		IPR
		Liability/Tort etc.

# Sub-contracting/ Partners



# Role of Contracts in Cloud (1)

- “In the cloud context, *contracts* have played a particularly important role in embracing (and absorbing) some of the challenges associated with the technological innovation.”
- **In the first phase**, contractual agreements were used to identify and allocate risks and responsibilities and create enforcement mechanisms where existing rules are inadequate (privacy and security, data breach notification, e-discovery etc.).
- **In the second phase** “..various stakeholders have started to work towards *best practice models*,...using contracts as a way to legally embrace the effects of cloud innovation.”

– Urs Gasser (Berkman 2014)

## Role of Contracts in Cloud (2)

- No “law of the cloud”
  - General rules are often difficult to apply
  - Few judicial decisions
  - Vague or competing “best practices”
  - Jurisdictional challenges
- Contract allows the parties to determine “the law” -- with limitations
  - Background law, immutable defaults etc.
- Cooperative role, even if difficult to enforce
  - Contract becomes the foundation for interaction
- Ongoing relationship between parties

# You can't always get what you want...

Customer needs	"Typical" Cloud contract
Regulatory requirements incorporated	Take-it-or-leave-it standard-K
Fixed Scope of Service/ notice prior to amendment or changes (software, providers, etc.).	Unilateral right to change terms, scope, providers etc.  Lacking "entire agreement" (or similar clause) allowing for future changes. Notice?
Info on sub-contractors/ "back-to-back" contracts in place	Lack of notice on sub-contractors and contracts used
Local law and forum	US State
Warranties/indemnification	No warranties/ wide disclaimers
Termination rights	Limited suspension / Termination

Terms	CLP at QMUL 2010	CLP at QMUL 2013	Kesan et al. 2013	Vincent et al. 2011
<b>Choice of Law</b>	90%	94%	N/A	96%
<b>Choice of forum</b>	Same as Law	Same as Law	N/A	96%
<b>Confidentiality</b>	Majority required user to provide	Majority required user to provide	N/A	N/A
<b>Security Measures</b>	Majority required user to provide	Majority required user to provide	N/A	"very few"
<b>Deletion</b>	Uncommon	Uncommon	33% (time period to delete)	"very few"
<b>Variation Clauses</b>	74%	97%	94.7% privacy policy	"many"
<b>Disclosure of data (legal proceedings etc.)</b>	97%	100%	100%	N/A



# EU Cloud Computing Strategy

## The Cloud computing strategy

The European Commission's strategy 'Unleashing the potential of cloud computing in Europe'

Adopted on 27/9/2012. Its aim is to speed up the cloud uptake across Europe

## Cloud strategy's key actions

Cutting through the jungle of standards

Development of model safe and fair contract terms

A European Cloud Partnership to drive innovation and growth for the public sector.

## DG CONNECT working groups for the implementation of the strategy

ETSI: Cloud Standards Coordination

Launched on 4/12/2012

The Cloud Select Industry Group on Service Level Agreements

Launched on 21/02/2013

The Cloud Select Industry Group on Certification Schemes

Launched on 10/04/2013

The Cloud Selected Industry Group on Code of Conduct

Launched on 21/02/2013

Research: The Cloud Expert Group

Now completed

• Steering Board

Launched on 19/11/2012

The European Cloud Partnership

• Cloud for Europe Initiative

Public Launch 14-15/11/2013

## “Cutting through the jungle of Standards”

- Creating interoperability and data portability
- Development of EU-wide voluntary certification schemes
- Establish a list of standards
  - European Telecommunications Standards Institute (ETSI)

# European Telecommunications Standards Institute (ETSI) Final Report

- “In short: the Cloud Standards landscape is complex but not chaotic and by no means a 'jungle’”.
- The legal environment for cloud computing is highly challenging. Research into standardized ways of describing, advertising, consuming and verifying legal requirements is necessary.
- Solutions need to accommodate both national and international (EU) legal requirements.

# Safe and Fair Contract Terms and Conditions (1)

- Develop model contract terms such as:
  - data preservation after termination of the contract,
  - data disclosure and integrity,
  - data location and transfer,
  - ownership of the data,
  - direct and indirect liability
- SMEs (municipalities?) and Consumers are the apparent focus

## Safe and Fair Contract Terms and Conditions (2)

- Standard SLAs → B2B
  - Goal was a model SLA
  - Result was a “check-list” or “tool kit”
- Code of Conduct → CSPs
  - Data Protection Practices
  - Government Access etc.
  - Could be included in contract, provide standards
- Expert Group on Contracts
  - Drafting model terms?
  - Difficult to draft terms for all users

# Article 17 of Directive 95/46/EC

## Security of processing

3. The carrying out of processing by way of a processor must be governed by a **contract or legal act binding the processor to the controller** and stipulating in particular that:

- the processor **shall act only on instructions from the controller**,
- the obligations set out in paragraph 1 [appropriate technical and organizational measures] as defined by the law of the Member State in which the processor is established, shall also be incumbent on the processor.

## Many similar contract terms– but some with a greater privacy focus

- Due to SpiderOak's '**zero-knowledge**' privacy **standard**, we do not have plaintext access to any data a user uploads through the SpiderOak application...[].
- It is SpiderOak policy to provide notice to a user about any law enforcement request unless prohibited from doing so by law.
- SpiderOak provides user information in response to law enforcement requests only in the event that SpiderOak is required to do so by law...[].

(SpiderOak.com 2014)

